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STANDING COMMITTEE ON WATER RESOURES
(2009-10)

FIFTEENTH LOK SABHA

MINISTRY OF WATER RESOURCES

DEMANDS FOR GRANTS (2009-10)

FIRST REPORT

LOK SABHA SECRETARIAT
NEW DELHI

December, 2009/Agrahayana,1931 (Saka)

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MINISTRY OF WATER RESOURCES

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(2009-10)

Presented to Lok Sabha on 10.12.2009

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LOK SABHA SECRETARIAT
NEW DELHI

December, 2009/Agrahayana,1931 (Saka)

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COMPOSITION OF THE STANDING COMMITTEE ON WATER RESOURCES (2009-10)

Shri Beni Prasad Verma - *Chairman*

MEMBERS
Lok Sabha

2. Shri Ghanshyam Anuragi
3. Shri Mahendrasinh P. Chauhan
4. Shri Sher Singh Ghubaya
5. Shri Dip Gogoi
6. Shri Badri Ram Jakhar
7. Shri Haribhau Jawale
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18. Dr. P. Venugopal (Tiruvallur)
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21. Vacant

Rajya Sabha

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25. Shri Anil Madhav Dave
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29. Shri Hemant Soren
30. Dr. Ashok S. Ganguly
31. Vacant

SECRETARIAT

1. Shri N.K. Sapra - Additional Secretary
2. Shri Devender Singh - Joint Secretary
3. Shri B.S. Dahiya - Director
4. Shri A.K. Yadav - Committee Officer

INTRODUCTION

I, the Chairman, Standing Committee on Water Resources (2009-10) having been authorised by the Committee to submit the report on their behalf, present this First Report on Demands for Grants (2009-10) of the Ministry of Water Resources.

2. The Demands for Grants have been examined by the Committee under Rule 331E(1)(a) of the Rules of Procedure and Conduct of Business in Lok Sabha.

3. The Committee took evidence of the representatives of the Ministry of Water Resources on 24 September and 14 October 2009.

4. The Report was considered and adopted by the Committee at their sitting held on 13 November 2009.

5. The Committee wish to express their thanks to the representatives of the Ministry of Water Resources for providing them the requisite written material, and for oral depositions in connection with the examination of the subject.

6. The Committee would also like to place on record their sense of deep appreciation for the assistance rendered to them by the officials of the Lok Sabha Secretariat attached to the Committee.

NEW DELHI
25 November, 2009
04 Agrahayana, 1931(Saka)

BENI PRASAD VERMA,
Chairman,
Standing Committee on Water Resources

CHAPTER-I

IMPLEMENTATION OF THE COMMITTEE'S RECOMMENDATIONS

The last Report of the Standing Committee on Water Resources on Demands for Grants (2008-09) of the Ministry of Water Resources was presented to the House on 22 April 2008. The 9th Report of the Water Resources Committee of 14th Lok Sabha contained 20 recommendations / observations.

1.2 In compliance with Direction 73-A of the Directions by the Speaker, the Minister of State for Water Resources made a Statement in Lok Sabha on 22 October 2008 giving the status of implementation of various recommendations made by the Committee in their Ninth Report (14th Lok Sabha). An analysis of the Ministry's statement showed that the Government had accepted 16 out of 20 recommendations. Of the remaining four recommendations, the reply of the Government on one Recommendation was satisfactory, while replies to three Recommendations were of interim nature.

1.3 On the basis of Action Taken replies received from the Ministry of Water Resources on the above mentioned Report, the Committee presented their Tenth Action Taken Report to the House on 22 October 2008. The Committee commented on the Action Taken Replies furnished by the Ministry in respect of recommendations at Para Nos. 2.94, 3.38, 3.39, 3.40 and 5.10 contained in the original Report. Statement giving replies to the comments contained in Tenth Action Taken Report has since been received from the Ministry. The Statement will be laid on the Table of both the Houses as per the procedure laid down in Rule 37 of the Rules of Procedure (Internal Working) of Department Related Standing Committees.

CHAPTER-II

BUDGETARY ALLOCATIONS

2.1 Water as a resource is critical and one of the most elementary and necessary commodity for survival of life on earth. Water is the most precious of all natural resources available to man. The casual attitude towards use of water and global warming has forced people to think how to conserve and use it efficiently. All over the world concerns have been raised for development, conservation and management of the limited water resources through proper planning and coordination by all the concerned towards the goal of sufficient and equitable distribution to all sections of society.

2.2 The Ministry of Water Resources in the Government of India is responsible for laying down policy guidelines for overall development, conservation and management of water as a national resource, evolve an overall national perspective and coordination in diverse water uses. The activities of the Ministry include general policy, technical assistance, research and development, training, matters relating to irrigation and multipurpose projects, ground water management, conjunctive use of surface and ground water, command area management, flood management including drainage, flood proofing, water logging and sea erosion and dam safety. It is also responsible for regulation and development of inter-State rivers, implementation of awards of Tribunals, water quality assessment, bilateral and external assistance and cooperation programmes in the field of Water Resources common to India and neighbouring countries.

Analysis of Demands for Grants (2009-10)

Budget at a Glance

(Rs. in crore)

	Revenue	Capital	Total
Charged	-	4.00	4.00
Voted	941.53	84.01	1025.54
Total	941.53	88.01	1029.54

2.3 A provision of Rs. 1,029.54 crore has been made for 2009-10 in respect of the Ministry of Water Resources in Demand No. 103. The Detailed Demands for Grants of the Ministry were laid on the Table of Lok Sabha on 15 July 2009. The estimated strength of officers and establishment of the Ministry of Water Resources as on 1 March 2009 stands at 210 and 447 with salary provision of Rs.10.47 crore and Rs.11.30 crore respectively for 2009-10.

2.4 The Detailed Demands for Grants shows that the total Demand (Voted) (Demand No. 103) is Rs.1,025.54 crore of which comprises Rs.941.53 crore on the Revenue Section and Rs.84.01 crore on the Capital Section. There is an increase of Rs.147.58 crore on Revenue Section and reduction of Rs.24.37 crore in Capital Section in comparison to the previous year. The details of Sector-wise allocation for different programmes/activities are shown in *Appendix I*.

2.5 The comparative Budget allocation of the Ministry of Water Resources during 2008-09 and 2009-10 and Budget Estimate and the Actual for 2007-08 are given below :

Comparative Budget Proposals

(Rs. in crore)

	2007-08 Actual (BE)*			2008-09 BE			2008-09 RE			2009-10 BE		
	Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total
										(%change over BE 2008-09)		
Revenue	491.68 (570.00)	258.58 (283.01)	750.26 (853.01)	503.00	290.57	793.57	467.60 (-7.03)	346.70 (19.39)	814.30 (2.614)	528.00 (4.97)	413.53 (42.38)	941.53 (18.64)
Capital	34.76 (42.00)	1.39 (3.15)	36.15 (45.15)	109.00	3.76	112.76	94.40 (-13.39)	3.30 (-12.23)	97.70 (-16.28)	84.00 (-22.93)	4.01 (6.64)	88.01 (-21.94)
Total	526.44 (612.00)	259.97 (286.16)	786.41 (898.16)	612.00	294.33	906.33	562.00 (-8.06)	350.00 (18.914)	912.00 (0.625)	612.00 (0)	417.54 (41.86)	1029.54 (13.594)

* *Budget estimate given in brackets thus ( )*

2.6 It may be observed from the comparative budget proposals that there is an overall increase in Budget allocation for 2009-10. In Revenue Section under Plan allocation, there has been an increase of Rs.25 crore (4.97%) in Budget Estimate of 2009-10 over Budget Estimate of 2008-09 while non-plan allocation has been increased to Rs.413.53 crore (42.38%) from Budget Estimate of Rs.290.57 crore in 2008-09. In Capital Section, plan allocation at Rs.84.00 crore shows a reduction of Rs.25.00 crore (-22.93%) as compared to Rs.109.00 crore in 2008-09. Non-plan allocation at Rs.290.57 crore during 2008-09 has been increased to Rs.413.53 crore (42.38%) during 2009-10. The overall plan allocation in Budget Estimate 2009-10 remains at Rs. 612 crore as was in the year 2008-09. However, non-plan allocation has increased from Rs.294.33 crore in BE 2008-09 to Rs.417.54 crore during 2009-10 i.e.. an increase of Rs.123.21 crore (41.86%).

2.7 The Budget Estimate 2009-10 at Rs.1,029.54 crore comprises Plan allocation of Rs. 612.00 crore and Non-Plan allocation of Rs.417.54 crore excluding allocations for Accelerated Irrigation Benefit Programme and other water resources programmes.

2.8 When asked the reasons for considerable increase in non-plan allocation and nominal increase in plan Revenue allocation in 2009-10 and also reduction at RE stage in 2008-2009 the Ministry in a written reply stated :

> "The allocations for the various activities under the schemes to be supported from the 'revenue head' have been made as per the projected requirement from various organisations / agencies responsible for implementation of the activities. The increase is very nominal.
>
> The main reason for enhancement of Non-Plan allocations is for meeting additional expenditure due to increase in salary, increment of staff, increase of DA, etc."

2.9 In reply to a query regarding reduction in Plan allocation at RE stage in 2008-09 the Ministry in a reply stated :

> "The reduction of Rs.50 crore allocations for the Plan scheme at RE stage during 2008-09 has been mainly due to the following reasons:
>
> (a) There was delay in negotiations in respect of the World Bank assisted scheme "Hydrology Project" and therefore the allocation was reduced from Rs.44 crore to Rs.25.51 crore.
>
> (b) The allocation for the scheme "Groundwater Management and Regulation" was reduced from Rs.95 crore at BE level to about Rs. 65.26 crore on the RE level mainly because the plan for procurement of some equipment, particularly 'Drilling Rigs' could not materialize."

2.10 On the question of reduction of allocation by 22.98% in the Capital Section (Plan) from Rs. 109 crore to Rs. 94.40 crore at RE stage in 2008-09, the Ministry in a written reply stated :

> "The allocation under Capital Section (Plan) is primarily for meeting the requirement in respect of schemes 'Farakka Barrage Project" and "Infrastructure Development'. The allocation of fund during 2008-09 for these schemes could not be fully utilised. After a thorough review, the allocation for these schemes for the year 2009-10 have been appropriately modified.
>
> Scheme-wise decrease in the Capital Sector (Plan) is as under:

(Rs. in crores)

Scheme	Allocation for 2008-09 (B.E.)	Allocation for 2009-10 (B.E.)	Decrease
Farakka Barrage Project	75.00	70.00	5.00
Infrastructure Development	34.00	14.00	20.00

2.11 As regards the reduction in plan allocation (Revenue) at RE 2008-09 stage by 7.03% the Ministry intimated that reduction is partly due to slow pace of the completion of work and involvement of various

agencies not under the administrative control of Ministry of Water Resources. However, the overall progress and target would not be affected."

2.12 When asked about the reasons for increase in Plan (Revenue) allocation in BE (2009-10), the Ministry in a written reply stated :

> "The increase in the activities to be supported under Plan (Revenue) during 2009-10 are primarily for meeting the enhanced requirement for the schemes, Development of Water Resources Information System, Investigation of Water Resources Development and River Management Activities and Works related to Border Rivers."

2.13 The percentage of expenditure (Plan) during the year 2007-08 was 86% whereas it dropped to 73% during the year 2008-09 against 72% in 2006-07 and 82% in 2005-06.

2.14 In reply to a query of the Committee regarding reasons for downfall in actual expenditure the Ministry informed that the expenditure could not be incurred as per the targets particularly in respect of the schemes regarding Ground Water Management and Regulation, Hydrology Project and R & D. There have been slight shortfalls in some of the schemes also.

2.15 According to the information provided by the Ministry, 43 and 21 Utilisation Certificates (as on 1 April 2009) worth Rs.2.22 crore and Rs.38.38 crore from 65 Institutions/Autonomous Bodies and 25 State Governments respectively are outstanding in respect of Grants released upto 31 March 2006. When asked for the reasons thereof and present status of the UCs, the Ministry in a written reply stated that these UCs pertain to the Institutions/Autonomous Bodies spread all over the country**.** They are being constantly reminded to furnish the utilisation certificates regularly in appropriate format. The status of outstanding UCs as on 31 July 2009 in respect of Grants released upto 31 March 2007 to Institutions/Autonomous Bodies and State Government is as given below:

Status as on	Institutions/Autonomous Bodies		States/UTs	
	No. of UCs	Amount (Rs. In crore)	No. of UCs	Amount (Rs. In crore)
01.04.2008	87	5.17	47	68.56
01.04.2009	43	2.22	21	38.38
31.07.2009	28	1.63	21	38.38

2.16 It is also noticed that a large amount of Rs.32.66 crore is involved in respect of seven outstanding UCs under CAD Scheme. The Ministry in response to a query of the Committee stated as follows :-

"UCs are outstanding with various State Governments. The main reason for the outstanding UCs is non-reconciliation of accounts of the implementing agencies of the State Government."

National Projects:

2.17 Fourteen Projects have been declared as National Projects by the Government of India where Central Government provides 90% assistance towards cost of the project. The list of such projects are at **Appendix-II**. The irrigation benefit from these projects is estimated to be about 21 lakh Ha. apart from additional indirect benefits and availability of drinking water. The guidelines for implementation of National Projects have been issued on 26 February 2009. Out of total budget allocation of Rs. 8,000 crore made under AIBP for 2009-10, the Planning Commission has allocated Rs. 1,800 crore for National Projects.

2.18 The Committee desired to know the response of beneficiary/implementing agencies after the issue of guidelines for implementation of National Projects. The Ministry in a note submitted as under:

"The State Government of Maharashtra submitted proposal for funding of Gosikhurd Project under the scheme of National Project during 2008-09 and grant amounting to Rs.450 crore had been released during 2008-09 for the project. For the year 2009-10 also, first instalment of grant amounting to Rs.720 crore has been released for the project. The Government of Andhra Pradesh has submitted proposals of Polavaram project and J.Chokkarao Lift Irrigation Scheme for inclusion in the list of the national projects. Proposals of Kanhar, Bansagar, ERM of Sharda Sahayak canal, Saryu Nahar, Baghen and Rajghat project have been submitted by the Govt. of Uttar Pradesh. Some other States such as Gujarat, Madhya Pradesh and Orissa are also in the process of posing intra-State projects in their respective States for inclusion in the list of national projects."

2.19 When asked to give details of Saryu Canal Project for which Uttar Pradesh Government has forwarded a proposal for inclusion in the list of National Projects and its present status, the Ministry in their reply submitted :

"As per the proposal submitted by the State government of Uttar Pradesh, Saryu Nahar Project of Uttar Pradesh situated in Bahraich, Shrawasti, Bairampur, Gonda, Basti, Sant Kabirnagar, Siddharthnagar and Gorakhpur districts envisages construction of 7 Nos. Head Works namely Girija Barrage, Saryu Barrage, Rapti Barrage, Ayodhya Pump Canal, Gola Pump canal, Utraula Pump canal and Dumariaganj Pump canal. The project also envisages construction of 1150 km of Main canals and Branches, 8240 km of Distributories and Minors, 65 km of Escape Channels and 9250 km of drains to cover Culturable Command Areas (CCA) of 12.00 lakh ha. The project will provide irrigation benefits to 12.00 lakh ha irrigable command area. The ultimate irrigation potential of the project is 14.04 lakh ha. The latest estimated cost of the project is Rs.7330.68 crore at 2008 price level. Expenditure incurred on the project till March 2009 is Rs.2423.15 crore. The project was started during 1978 and is proposed for completion by 2014.

The proposal submitted by the State government to CWC Lucknow has been returned with some observations by the CWC Lucknow. After satisfactory compliance to the observations of the

CWC by state government, the CWC Lucknow will consider forwarding of the proposal to the CWC Headquarter."

2.20 In response to a specific query of the Committee regarding time to be taken by the Government to include the Saryu Nahar project in National Projects, the Ministry submitted :

> "As per Memorandum of Understanding submitted by the State government, the approved cost of the project by TAC is Rs.2765.16 crore in the year 2000. The latest estimated cost of the project is Rs.7330.68 crore. Since the latest estimated cost of the project has considerably increased with reference to the approved cost, the State government will be required to get revised cost estimates approved from the TAC and obtain revised investment clearance from Planning Commission before any further action could be taken in the matter."

National Action Plan on Climate Change :

2.21 The threat of climate change is now an established fact. With a view to address the possible threats posed by climate change the National Action Plan on Climate Change was announced by the Hon'ble Prime Minister on 30 June 2008. National Action Plan on Climate Change (NAPCC) envisages eight National Missions which *inter-alia* include National Water Mission. Ministry of Water Resources has been assigned to take up the work for the institutionalisation of the National Water Mission.

2.22 The scrutiny of the Outcome Budget 2009-10 reveals that a Draft Comprehensive Mission Document for National Water Mission has been prepared by the Ministry and submitted to Prime Minister's Office for consideration of Prime Minister's Council on Climate Change. One of the important strategies is to revisit the National Water Policy. In reply to a query, in this connection the Ministry stated as under :

> "The draft Mission Document for National Water Mission includes (a) Introduction, (b) Objectives of National Water Mission; (c) Goals and strategies; (d) Monitoring and evaluation mechanism, institutional set up and plan of action; (e) Research, developing, training and capacity building; and (f) Additional fund requirements. The major objectives of National Water Mission are "conservation of water, minimizing wastage and ensuring its more equitable distribution both across and within States through integrated water resources management. As per the draft Mission Document, the five identified goals of National Water Mission are :
>
> - Comprehensive water data base in public domain and assessment of the impact of climate change on water resources;
> - Promotion of citizen and state actions for water conservation, augmentation and preservation;
> - Focussed attention to over-exploited areas;
> - Increasing water use efficiency by 20%; and
> - Promotion of basin level integrated water resources management.
>
> The Mission Document has also identified the strategies for each of the goals."

2.23 In this connection, the Secretary, Ministry of Water Resources elaborating further during evidence inter-alia stated that one of the important goals of the National Water Mission is to increase the efficiency of water use by 20%. The Ministry of Water Resources has initiated actions through Command Area Development and Water Management Programme and by promoting Participatory Irrigation Management. Efficiency of major and medium surface water projects is also sought to be improved through extension, renovation and modernization projects under AIBP.

2.24 Keeping in view the strategies as proposed, the Committee desired to know the changes likely to take place when the National Water Policy is revisited. The Ministry in a written reply stated :

> "The revised National Water Policy, adopted by National Water Resources Council in 2002, addresses the various issues related to water resources. The National Water Policy provides for its periodic revision as and when need arises. In view of involvement of numerous stakeholders, particularly the State Government, a wider consultation has been envisaged in the National Water Mission for the review of National Water Policy which *inter alia* includes:
>
> a) review of National Water Policy by Ministry of Water Resources;
>
> b) consultations with States and other stakeholders; and
>
> c) adoption of revised policy by the Government.
>
> Based on the suggestions / observations received in the Ministry from time to time, the following issues have been identified for consideration at the time of review of National Water Policy.
>
> - Due emphasis should be laid on ground water management and the section on "Ground Water Development" should be renamed as "Ground Water Management" and should cover important issues related to ground water management.
> - In view of its importance, separate section on "Rainwater Harvesting and Artificial Recharge" should be incorporated in the National Water Policy.
> - A section should be included to address important water related disaster issues.
> - A specific section on "Restoration of Water Bodies" may be included.
>
> However, a view has to be taken after deliberations with States and other stakeholders. Suggestions have also been sought from States and issue of review of National Water Policy has also been included as an agenda for the 13th meeting of National Water Board."

2.25 The Secretary, Ministry of Water Resources further informed during evidence that the Ministry has also set up one professorial Chair each in IIT Roorkee, IIT Kanpur, IIT Kharagpur, IIT Guwahati, NIT Srinagar and NIT Patna, with the objective to carry out studies on water resources with special emphasis on assessment of effect of Climate Change on water resources systems. A sum of Rs. one crore towards endowment has been provided for each of the professorial Chair.

Bharat Nirman – Irrigation Sector :

2.26 Irrigation is one of the six components for development of rural infrastructure under Bharat Nirman. The irrigation component of Bharat Nirman aims at creation of irrigation potential of 10 Mha in four years, i.e. between 2005-06 and 2008-09. Creation of total irrigation potential of 6.14 Mha has been reported by States. It is estimated that during the said period the total irrigation potential of about 7 Mha would be created. However, as per News reports the progress during the last two years is even worse as only 2.9 Mha could be covered as against the target of 5.7 Mha.

2.27 When asked to comment on it, and give the actual figures, the Ministry *inter alia* stated that as per latest information, the irrigation potential created during the last four years, i.e. 2005-06 to 2008-09 is 7.12 Mha against the target of 10 Mha as per details given below:

Year	Irrigation Potential Created
2005-06	1.68 Mha
2006-07	1.94 Mha
2007-08	1.70 Mha
2008-09	1.80 Mha

Total	7.12

2.28 The Secretary, Ministry of Water Resources during evidence further added that the remaining target is proposed to be achieved during the next two financial years 2009-10 and 2010-11.

2.29 The reasons attributed by the Ministry of Water Resources for non-achievement of the targets are tardy land acquisition process by States and their failure to contribute the matching share of funds. The Ministry of Environment and Forest is also said to be responsible for delayed clearance of the projects.

2.30 The Committee enquired whether Ministry of Water Resources has taken up the issue of further clearance of irrigation projects proposals and also details of the effort made by the State Governments to raise the pace of land acquisition process. The Ministry in a written reply stated as under :

> "The irrigation projects are planned and implemented by the respective State Governments and all action for clearance of the project and their implementation including the land acquisition, etc. are undertaken by them. The detailed project reports (DPR) are prepared by respective State Governments and submitted for appraisal and necessary clearance. Ministry of Water Resources

(MoWR) has taken necessary measures for expeditious appraisal of the project proposals by Central Water Commission and consideration of the proposal by Technical Advisory Committee. MoWR is taking up the issues related to pace of land acquisition process with the State Governments considering its significant impacts on effective and efficient achievement of the objectives of irrigation project."

Fall in Ground Water Level :

2.31 According to newspaper reports a study by American researchers says that human consumption caused a decline of 109 cubic kilometres in the amount of groundwater beneath northern India since 2002. The decrease which amounts to a one foot fall in groundwater level every year over the past decade, is 66 times more than Delhi's annual water requirement of 1.65 cubic Kms. As half of the water is used for irrigation, it will have serious implications for agricultural production in the country. If measures are not taken soon to ensure sustainable groundwater usages, consequences for the 114 million residents of the region may include a collapse of agricultural output, severe shortage of potable water, conflict and suffering. The Study further says that rapid use of groundwater is a cause of concern as these underground aquifers can take thousand of years to recharge.

2.32 On being asked, the Ministry while giving their views on the news reports stated as under :

"The study indicates that in the north- west India, ground water is depleting at an alarming rate. The findings of the study are similar to that of the studies related to identification of over-exploited blocks by Central Ground Water Board on the basis of analysis of data correlated from the field. CGWB has already identified 305 blocks in this region as over exploited blocks."

2.33 Keeping in view the seriousness of the issue, the Committee desired to know as to what steps Government has taken / proposed to rationalize the use of groundwater for various uses. The Ministry in their reply stated :

"Government has taken the following steps:-

(i) The Union Government has circulated a Model Bill to the States and Union Territories to enable them to enact suitable legislation for regulation and control of ground water development and management. The Model Bill has a provision for implementation of rain water harvesting by the concerned authorities in the States. The Bill was initially circulated in 1970 which has been re-circulated in 1992, 1996 and 2005 for adoption. So far 11 States have enacted Ground Water legislation.

(ii) Central Ground Water Authority has been constituted under Section 3(3) of Environment (Protection) Act of 1986 vide Ministry of Environment & Forests' notification dated 14.1.1997 and reconstituted under MOEF notification dated 6.11.2000.

(iii) CGWA has notified 43 areas in the country for regulation of ground water development and management. For enforcement of the regulatory directions issued under Section 5 of EPA, 1986, concerned DCs/DMs have been authorized to take necessary action."

2.34 The Committee further enquired if there is any plan to reformulate/amend the Water Policy to control the use of groundwater to avoid the grim situation of groundwater. The Ministry informed that National Water Mission envisages review of the National Water Policy. Various issues identified for consideration during process of review of National Water Policy includes emphasis on ground water management, Rainwater Harvesting and Artificial Recharge and Restoration of Water Bodies.

Low Irrigation Efficiency

2.35 The Eleventh Plan document reveals that for a gross irrigated area of about 87 MH, the water use is 541 bcm which gives a delta of 0.68 m per ha. of gross irrigated area. The average annual rainfall is 1170 mm (1.17 m). Taking 70% of the rainfall as effective for crop consumptive use, the gross water use is about 1.45 m (4.8 feet) per ha. of the gross irrigated area. This is very high as compared to water use in irrigation system in US where water allocation is about 3 feet. This overuse in the country reflects a low irrigation efficiency of about 25% to 35% in most irrigation systems, with efficiency of 40% to 45% in a few exceptional cases. The reasons that contribute to low irrigation efficiency can be identified as the completion of dam / head works ahead of canals, dilapidated irrigation systems, seepage through unlined canal system, lack of field channels and canal network etc.

2.36 The equitable and optimal use of water from canal irrigation has been a matter of concern. The traditional approach of pursuing these objectives through field level functionaries of irrigation department had its limitations. The participation of beneficiaries through Participatory Irrigation Management (PIM) and the maintenance of village-level distribution channels through Water Users Associations (WUAs) has been found useful. It needs to be pursued more vigorously with genuine empowerment of WUAs. It is reported that 55,501 WUAs have been created in 23 States (covering area of 10.23 Mha), of which Andhra Pradesh, Orissa, West Bengal and Tamil Nadu are in the lead.

2.37 In reply to a query of the Committee, the Ministry informed that as of now 56934 WUAs have been formed. So far 14 States, namely, Andhra Pradesh, Assam, Bihar, Chhattisgarh, Goa, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamil Nadu and Uttar Pradesh have enacted PIM

acts. Ministry of Water Resources has been periodically pursuing the matter with the State Governments in various review meetings, conferences and correspondences.

2.38 The Committee made a specific query as to what role Ministry of Water Resources has in increasing the efficient use of water resources. The Secretary, Ministry of Water Resources during evidence stated as under :-

> 'The Government of India has to promote efficient use of water basically in agriculture because about 83 per cent of water is going to agriculture. The Ministry of Agriculture has launched a programme for promoting micro irrigation and water use efficiency in agriculture. In addition, we have also launched a programme for Farmers' Participatory Action research programme under which plots of 5,000 farmers were selected in different parts of the country and the demonstrative schemes were executed with the help of agricultural universities, agricultural institutes and other institutions. The demonstration was given in those blocks to show how by using less quantity of water, more result can be achieved. Thirdly, under the National Water Mission, increase in efficiency of water use in different sectors including agriculture is a very important element. Frankly, the Ministry does not have any programme to promote water use efficiently directly because water resource projects are implemented by the State Government. Under the Command Area Development Programme, efforts are made where we are providing central assistance to the States for developing command areas. Efforts are made to increase the water use efficiency. In addition, for improving the efficiency of water resources infrastructure, we are having a scheme by the name ERM-Extension, Renovation and Modernisation.'

2.39 The Committee observe that the Budgetary provisions shown in the Demands for Grants (2009-10) are Rs.1,029.54 crore excluding the funds earmarked for Accelerated Irrigation Benefit Programme (AIBP) and other water resources programmes. There is no change in the Plan side which remains at Rs. 612 crore as it was during 2008-09 at B.E. Stage. The Demand shows an overall increase of Rs. 123.21 crore over the corresponding figure of BE 2008-09. The allocation was reduced under Plan head by 7.03% during 2008-09 at RE stage as compared to BE 2008-09. Whereas on the Non-plan side expenditure was raised by 19.39%, i.e. from Rs. 290.57 crore to Rs. 346.70 crore, in capital section, plan allocation at Rs. 84.00 crore shows a reduction of Rs. 25.00 crore, i.e. 22.93% as compared to Rs. 109.00 crore in BE 2008-09. According to Ministry, the allocations for various activities under the schemes to be supported from the Revenue Head have been made as per the projected requirements. However, the main reason for enhancement of Non-plan allocations is additional expenditure due to increase in salary, increment of staff, increase in DA, etc. The reduction in Plan allocation at RE stage in 2008-09 has mainly due to delay in negotiations with World Bank assisted scheme 'Hydrology Project' and also because of non procurement of some equipment

required under Groundwater Management and Regulation. The reduction of allocation under Capital Section (Plan) from Rs.109 crore to Rs. 94.40 crore at RE stage in 2008-09 is primarily for meeting the requirement in 'Farakka Barrage Project' and 'Infrastructure Development' which could not be utilized. The Plan (Revenue) allocation for 2009-10 has been increased primarily for meeting the enhanced requirement for the schemes, viz. Development of Water Resource Infrastructure System, Investigation of Water Resources Development and River Management & works in Border Rivers. The Committee desire that while assessment of requirement is considered, a token allocation should be made where the procurement / scheme has not been finalized to avoid major changes at RE stage and also to avoid huge savings at the end of the year.

2.40 The Committee further note that the actual plan expenditure during 2007-08 was to the extent of 86% which dropped to 73% during 2008-09. The Ministry informed the Committee that the expenditure could not be incurred as per the targets in respect of the schemes 'Ground Water Management and Regulation, Hydrology Project and R&D.' There have been slight shortfalls in some of the schemes also. The Committee desire the Ministry to give greater and focussed attention while assessing the actual requirement of funds during a particular year so that the funds allocated are utilized judiciously and optimally.

2.41 The Committee note that as on 1 April 2009, 43 Utilisation Certificates(UCs) worth Rs. 2.22 crore from 65 institutions and Autonomous Bodies and also 21 UCs worth Rs. 38.38 crore from 25 State Governments were outstanding. According to the Ministry, due to their constant efforts the number of outstanding UCs as on 31 July 2009 in respect of grant released upto 31 March 2007 had come down to 28 for institutions and Autonomous Bodies. However it remained at 21 in respect of State Governments which is stated to be due to non-reconciliation of accounts of the implementing agencies of the States. The Committee, therefore, desire that the Ministry should not allow the States and particularly the autonomous bodies working under them to delay submission of UCs and recommend that the Ministry of Water Resources should set some timeframe for submission of UCs

besides introducing penalty clause to ward off such delays. The States should also be asked periodically for reconciliation of accounts of the implementing agencies of the States.

2.42 The Committee note that the Government have declared 14 Projects as 'National Projects' and the irrigation benefit from these projects is estimated to be about 21 lakh ha. apart from additional benefits and availability of drinking water. The Government has also made provision of Rs. 1,800 crore for National Projects out of Rs. 8,000 crore allocation made for AIBP during 2009-10. The Government of Andhra Pradesh submitted proposals for Polavaram and J. Chokkarao Lift Irrigation Scheme. Proposals of Karhar, Bansagar, ERM of Sharda Sahayak Canal, Saryu Nahar, Baghar and Rajghat projects have been submitted by Government of Uttar Pradesh. The Governments of Gujarat, Madhya Pradesh and Orissa are also in the process of giving some proposals for inclusion in the list of National Projects. The Committee further note that since the cost of the Saryu Nahar Project has increased manifold, the State Government is required to get the revised cost approved from the TAC and obtain revised investment clearance from Planning Commission before any further action could be taken. The Committee find that the whole process of inclusion of the projects of State Government in the list of National Projects is exceedingly time consuming and far from encouraging to the State Governments. The Committee, therefore, desire that Ministry should streamline the whole process and encourage the States about the scheme of National Projects so that they come forward with such more proposals.

2.43 The Committee note that in order to address the possible threat posed by climate change, the Prime Minister announced the National Action Plan on Climate Change (NAPCC) on 30 June 2008 which envisages eight National Missions including the National Water Mission (NWM). The Ministry of Water Resources has prepared the draft Mission document and submitted for consideration by Prime Minister's Council on Climate Change. NWM's objectives are 'Conservation of water, minimizing wastage and ensuring equal distribution across and within States'. Also, one of the goals of the NWM is to increase the efficiency of water use. The Committee further note that in view of the strategies proposed, the revisiting of National Water Policy will be undertaken in consultation with the stakeholders particularly the State Governments. It is likely to be discussed in the thirteenth meeting

of 'National Water Board.' The Committee expect the Ministry of Water Resources to review the National Water Policy and take note of the various suggestions given by the State Governments, and other stakeholders and eminent climatologists keeping in view the looming threat of climate change and the grave scarcity of water in future.

2.44 The Committee also note that the Ministry of Water Resources has set up professorial Chairs, one each in IITs Roorkee, Kanpur, Kharagpur and Guwahati and NITs Srinagar and Patna, to carry out studies in water resources with special emphasis on assessment of the effect of Climate Change on water resources systems. A sum of Rs.1.00 crore towards endowment has been provided for each of the professorial Chair. The Committee would like to be informed of the status of studies so conducted.

2.45 Irrigation is one of the six components for development of rural infrastructure under Bharat Nirman. The Committee note that under Bharat Nirman irrigation potential created during the last four years, i.e. from 2005-06 to 2008-09 is 7.12 Mha against the target of 10 Mha. According to the Ministry of Water Resources the remaining target is proposed to be achieved during the next two years, i.e. 2009-10 and 2010-11. The shortfall in achieving the target is attributed to tardy land acquisition process by States and delay in clearance of project by the Ministry of Environment & Forests. The Committee feel that due to lack of proper communication and coordination between different Departments and implementing agencies the stipulated targets could not be attained by the Ministry. Therefore, they desire the Ministry of Water Resources to make concerted and sustained efforts to overcome delays in clearance of projects. The Committee are optimistic that with prior inter-Ministerial and inter-Governmental consultations, foresight and strict monitoring the implementation of projects would be completed within the stipulated time and funds. The Committee expect the progress report in this regard to be submitted to them periodically.

2.46 The Committee note that according to a recent Study conducted by American researchers and published in on-line edition of the Journal *Nature* dated 12 August 2009, human consumption caused a decline of 109 cubic km in the amount of ground water beneath northern India since 2002. The

findings of the Study are similar to that conducted by the Central Ground Water Board related to identification of over exploited blocks (305) in this region. The Government have taken steps to rationalize use of ground water for various uses which include (i) Model Bill circulated to States/UTs for enactment of suitable legislation; (ii) Constitution of Central Ground Water Authority; and (iii) 43 areas of the country notified by CGWA for regulation of Ground Water development and management by concerned DCs/DMs. The Committee observe that law on the pattern of the Model Bill has been enacted so far only in 11 States. The Committee hardly need to emphasise the importance and urgency for proper and efficient use of Ground Water considering the fast receding underground water table. They would, therefore, like the Ministry of Water Resources to chalk out an innovative and attractive strategy so that the remainder States also enact the model legislation. The Committee would also like to be apprised of the specific initiatives made in this direction and the concrete outcome thereof.

2.47 The Committee note that as compared to U.S. where the gross water allocation for use in irrigation is 3 feet per ha., it is 4.8 feet of the gross irrigated area in our country. The overuse reflects a low irrigation efficiency of about 25% to 35% in most irrigation systems with efficiency of 40% to 45% in some exceptional cases. The primary reason identified is the poor infrastructure of irrigation systems including canals, drainage, field channels, etc. The Participatory Irrigation Management (PIM) has proved very useful in maintenance of village level distribution channels through Water Users Associations (WUAs). Fourteen States have so far enacted the PIM Legislation. The Ministry of Water Resources has been periodically pursuing the matter with the State Governments through different channels. The Committee are happy to note that the number of WUAs has increased to 56,934. These WUAs help in maintaining the field channels of irrigation system and reduce the workload of Government machinery. However, the Committee desire that WUAs should be given more powers and funds so that they can maintain the irrigation infrastructure with greater ease and efficiency. They also desire the Ministry of Water Resources to pursue the matter of enactment of PIM Legislation at the highest level in those State Governments which are yet to enact such a legislation.

2.48 The Committee also note that the Government has launched Farmers' Participatory Action Research Programme under which plots of 5,000 farmers were selected in different parts of the country and the demonstrative schemes were executed with the help of agricultural universities/institutes and other institutions. The demonstrations were given to show how by using less quantity of water more results can be achieved. National Water Mission (NWM) also emphasised on increasing efficiency in water use in all sectors. Regrettably, the Ministry does not have any programme to promote water use efficiency directly, contending that all the schemes are implemented by State Governments though under Command Area Development Programme and ERM programme, water use efficiency is being promoted indirectly by MoWR. The Committee, therefore, desire the Ministry of Water Resources to play a greater proactive role in close concert and coordination with the Agriculture ministry to encourage micro irrigation system which will help in utilizing the available water and irrigation infrastructure optimally with a view to serve more people/areas.

CHAPTER –III

MAJOR AND MEDIUM IRRIGATION

3.1 The planning, formulation and execution of all Major and Medium Projects are carried out by the concerned State Governments and the required funds are allocated out of their State Plan. The Ministry of Water Resources plays a pivotal role by providing technical know-how to the State Governments through its subsidiary organizations and statutory bodies set up for the purpose, viz. Central Water Commission (CWC), Central Soil and Material Research Station (CSMRS), Central Water and Power Research Station (CWPRS), National Water Development Agency (NWDA), National Institute of Hydrology (NIH), etc.

3.2 The Budget allocations (Plan and Non-Plan) for Major and Medium Irrigation (MMI) for the year 2008-09 and 2009-10 are given below:-

(Rs. in crore)

Name of the Scheme	BE 2008-09		RE 2008-09		BE 2009-10	
	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan
Major and Medium Irrigation	209.90	134.98	186.78	140.67	219.20	183.51

3.3 The Budget allocation (Plan) for MMI for the year 2008-09 was Rs.209.90 crore which was reduced to Rs. 186.78 crore at the Revised Estimates stage. The Committee desired to know the reasons for reducing the allocation by Rs. 23.12 crore at RE stage. The Ministry in their reply stated as under :

> "The reduction in plan allocation of 2008-09 at RE stage is mainly in two schemes Hydrology Project and Research and Development. The reasons for Hydrology Project was due to delay in negotiations in respect of the World Bank assisted Schemes. Therefore, the allocations was reduced from Rs. 44 crore to Rs. 25.51 crore. The allocation for R&D had to be reduced by about Rs.10 crore in view of delay in completion of some specific activities related to geomorphological studies, Farmers' Participatory Action Research Programme."

3.4 The Committee enquired about the special efforts made to fully utilize the allocation under the Schemes/Projects as also to tone-up the pace of implementation of schemes during the current year. The Ministry of Water Resources in their reply stated that intensive monitoring of the physical and financial targets

for each of the scheme including field visits by the senior officers of the Ministry, Central Water Commission and Central Ground Water Board, are planned.

3.5 The Budget allocation for MMI during the year 2009-10 has been earmarked at Rs. 219.20 crore which is Rs. 9.30 crore more as compared to the Budget allocation of the previous Financial Year 2008-09. When asked to give the rationale for enhancing the plan allocation in 2009-10, whereas the allocation was reduced by Rs. 23.12 crore at the RE stage in 2008-09, the Ministry in reply stated that the major increase is primarily for the scheme "Development of Water Resources Information System" as per the actual requirement.

3.6 The Budget allocations (Non-Plan) for MMI for 2009-10 has been increased to Rs. 183.50 crore as compared to previous Financial Year 2008-09 which was at Rs. 134.99 crore at BE stage and Rs. 140.67 crore at RE stage. When asked to give the reasons for increased allocation, the Ministry submitted that the increase is mainly for meeting expenditure on account of increased salary and payment of 40% arrears in 2008-09 and 60% arrears in 2009-10 due to implementation of the sixth CPC recommendations.

3.7 When Committee asked as to what measures have been taken by the Ministry to control Non-Plan expenditure and the outcome thereof, the Ministry in a written reply stated as under :

> "At the time of finalisation of RE 2008-09, 10% cut was made under the units 'Office Expenses' 'Domestic Travel Expenses', 'Foreign Travel Expenses', 'Publications', etc. Besides, the Ministry also strictly followed the economy/austerity measures of Ministry of Finance to keep the non-plan expenditure within the allocated budget."

3.8 As per the report of Working Group on Water Resources for XI Plan there were 477 (166 Major, 222 Medium and 89 ERM) on-going projects, which have spilled over to XI Plan. Also 309 new projects including 78 major, 145 medium and 86 ERM were proposed to be taken up during XI Plan. When asked as to how many of 477 projects have been completed by the end of March 2009, the Committee was informed that during the XI Plan period 26 Major, Medium & ERM projects have been completed.

3.9 When asked about the number of new projects taken up in the XI Plan, it was informed that during XI Plan, 39 new major/medium projects had been taken up under AIBP. Information related to other projects taken up by the State Governments during XI Plan is being collected and will be submitted as soon as possible.

3.10 On being asked as to what special measures have been initiated for completion of these projects, the Ministry in their reply stated that Central assistance is being provided to the States under Accelerated Irrigation Benefit Programme initiated in 1996-97. The guidelines have been modified from time to time to widen the scope of the programme for speedy completion of these projects.

3.11 The purpose of MMI projects is to create irrigation potential. The ultimate irrigation potential is 140 Mha and about 34 Mha of irrigation potential is yet to be created. When enquired as to what amount of irrigation potential has been created through MMI Projects vis-a-vis the target fixed for the same, the Ministry of Water Resources in their reply stated as under :

> "As per the 'Report of the Working Group on Water Resources for XI Plan (2007-12)', out of the Ultimate Irrigation Potential of 54.465 Mha under Major and Medium Irrigation sector, cumulative achievement upto X plan was 42.277 Mha and target of potential creation during XI plan is 9.0 Mha."

3.12 As the targets were not achieved in the past, the Committee desired to know as to what remedial action has been taken or proposed to be taken for achievement of the target fixed for XI Plan. The Ministry in a written reply stated that projects under AIBP and External Assistance are being monitored by CWC. Bottlenecks in the implementation of the projects are brought to the knowledge of State Government and project authorities for taking necessary action for early completion of the projects.

3.13 The Irrigation potential created upto the end of Tenth Plan through MMI was 42.277 Mha and utilization of irrigation potential was 34.42 Mha. Since the utilization of irrigation potential is less as compared to irrigation potential created, the Committee asked the percentage of potential being utilized and also the action proposed to increase the utilization of created potential. The Ministry in their reply stated that about 81% of potential created through major and medium irrigation has been utilised up to the end of X plan. Projects are being provided Central Assistance under CADWM program of MoWR to increase the utilisation of created potential.

3.14 The Budget allocation (Plan) for Major & Medium Irrigation for the year 2008-09 was Rs. 209.90 crore which was reduced to Rs.186.78 crore at RE stage. The reason for reduction at RE 2008-09 stage was mainly in two schemes i.e. Hydrology Project where delay took place in negotiations in respect of World Bank assisted schemes and Research and Development where allocation was reduced by Rs.10.00 crore in view of delay in completion of some specific activities related to

geomorphological studies and Farmers Participatory Action Research Programme. The Committee are inclined to believe that had the Ministry done intensive monitoring of the physical and financial targets for each of the schemes there would have been optimal utilization of the allocated funds within the prescribed time period. The increase in allocation for 2009-10 by Rs.9.30 crore is primarily for the scheme "Development of Water Resources Information System' as per the actual requirement. The Committee are perturbed to note that allocations were reduced during 2008-09 at RE stage due to delay in Hydrology project and R&D as they feel that delay not only affects the growth but also leads to increase in the cost of the work. The Committee, therefore, desire that Ministry should take concrete steps to avoid delays on their part particularly in projects like R&D so vital in the implementation of the project/scheme.

3.15 The Committee note that 477 on-going projects (166 Major, 222 Medium and 89 ERM) have spilled over to XI Plan. Also 309 new projects (78 Major, 145 Medium and 86 ERM) were proposed to be taken up during the XI Plan. Out of 477 projects 26 Major, Medium and ERM projects have been completed and 39 new Major / Medium projects have been taken up under AIBP so far. Keeping in view the pace of completion of projects, and the past trends, the Committee are apprehensive whether the projects so selected would be completed within the scheduled timeframe. The Committee were informed that the information on other projects taken up by the State Governments will be collected and submitted as soon as possible. The Committee desire the Ministry to take immediate steps to increase the pace of implementation of projects so that the farmers reap the benefits of the irrigation potential created.

3.16 The Committee note that the ultimate irrigation potential is 140 Mha whereas 34 Mha is yet to be created. Under MMI the ultimate irrigation potential is 54.465 Mha out of which 42.277 Mha has been created upto the end of Tenth Plan. The target for XI Plan is 9.0 Mha. The Committee note that the targets were not achieved in the past inspite of the assistance given under AIBP. According to the Ministry, bottlenecks in the implementation of the projects have been brought to the knowledge of the concerned authorities for taking necessary action for early completion of the projects. The

Committee further note that against the irrigation potential created to the extent of 42.277 Mha, the utilization of irrigation potential was 34.42 Mha upto X Plan, i.e. 81% of the created potential has been utilized. The Ministry is providing assistance under CADWM programme to increase the utilization of created potential. The Committee are perturbed to note that despite providing assistance under AIBP, the targets set for creation of irrigation potential are yet to be achieved. The Committee desire the Ministry to look into the causes of the underutilization and take appropriate and effective steps to increase the utilisation of irrigation potential.

CHAPTER –IV

MINOR IRRIGATION

4.1 Minor Irrigation Schemes are those ground water and surface water schemes which have a culturable command area upto 2,000 hectares individually. Surface Water Minor Irrigation Schemes are generally funded from the public sector outlay. The detailed budget allocation for Minor Irrigation during the year 2008-09 and 2009-10 are given below :

(Rs. in crore)

Name of Scheme	BE 2008-09		RE 2008-09		BE 2009-10	
	Plan	Non-Plan	Plan	Non-Plan	Plan	Non- Plan
Minor Irrigation	104.10	57.70	89.70	82.80	76.00	94.99

4.2 The Budget Allocation (Plan) for Minor Irrigation for the year 2008-09 was earmarked at Rs.104.10 crore. However, at the Revised Estimates stage, it has been reduced to Rs.89.70 crore which is Rs.14.40 crore less allocation. In response to a query of the Committee, the Ministry informed as under :

"The main reasons for reducing the allocation at R.E stage are mentioned below:

Name of scheme	Reason for reduction
GW Management & Regulation	Revision of allocation under Machine & Equipment head from Rs.13.93 crores, to Rs.10.96 crore in view of non-finalization of procurement of drilling rigs & ban on procurement of vehicles.
Rajiv Gandhi NGTRI	Non-creation of sanctioned posts.
Infrastructure Development	Non- finalization of Land and building cases & procurement of computers & peripherals (IT Plan component)

4.3 The Committee has been further informed that the enhancement in the non-plan expenditure during 2008-09 is mainly due to the significant increase in the salary component in view of the financial implications of the Sixth Pay Commissions recommendations.

4.4. The Budget Allocation (Plan) for Minor Irrigation Scheme during 2009-10 is earmarked at Rs.76.00 crore which is Rs.28.10 crore less allocation as compared to the previous Financial Year 2008-09. When asked to give the reason for reduced allocation for Minor Irrigation and also its affect on the pace of implementation of schemes, the Ministry informed that in view of the rescheduling of the purchase of deep

drilling rigs and other equipments and non-creation of sanctioned posts in Rajiv Gandhi National Ground Water Training & Research Institute the allocation has been reduced.

Ground Water Management and Regulation

4.5 The Scheme was launched at a cost of Rs. 460 crore for implementation by Central Ground Water Board during XI Plan. The allocation for Ground Water Management and Regulation has been Rs. 95.00 crore at BE stage 2008-09 which was reduced to Rs. 84.29 crore at the RE stage. The allocation for 2009-10 is Rs. 70 crore. The reason for reduction in allocation at RE stage 2008-09 as stated by the Ministry of Water Resources are reduction in Petrol, Oil and Lubricant (POL) (Rs. 12 crore), Machinery and Equipments (M & E) (Rs. 13 crore) in view of the non-finalization of drilling rigs and ban on procurement of vehicles. CGWB has a fleet of 88 rigs.

4.6 They further stated that in view of the rescheduling of the purchase of deep drilling rig the allocation during 2009-10 has been reduced.

4.7 Demonstrative projects on Artificial Recharge to ground water and Rain Water Harvesting proposed to be taken up under Central Sector Scheme by CGWB, at an estimated cost of Rs. 100 crore with 100% funding by the Central Government. In reply to the query of the Committee regarding the States which have come forward with proposals under this Scheme, the Ministry informed that the States are Kerala, West Bengal, Punjab, Arunachal Pradesh, Tamil Nadu, Orissa, Andhra Pradesh, Madhya Pradesh and Karnataka. It is further stated that the specific works initiated by the CGWB are feasibility studies for identification of areas suitable for construction of structures suitable for various hydrogeological settings. The organisation is also providing technical guidance to the state government agencies in preparation of project reports.

4.8 The Committee desired to know the number of demonstrative structures constructed so far and yet to be constructed. The Ministry in written reply stated as under :

> "As per the approved plan, a total of 75 artificial recharge projects consisting of 1,300 structures are proposed to be constructed during the XI Plan period. Proposals in respect of 475 structures in 7 States have already been approved by the State level Committees. The proposals for construction of 317 structures at an estimated cost of Rs.1,070 lakhs are being examined by CGWB."

4.9 As Eleventh Plan document also emphasized on recharge of ground water and rain water harvesting, the Committee desired to know the efforts made by the Ministry of Water Resources to make these Schemes popular/mandatory in public. The Ministry in their reply stated as follows :

"The Government has taken the following measures:

- Implementation of demonstrative artificial recharge projects under the central sector scheme of Ground Water Survey, Investigation and Exploration in select areas during 2006-2009.

- Implementation of artificial recharge studies under the central sector scheme of Ground Water Management & Regulation during XI Plan.

- Circulation of Manuals/ Guides on Artificial Recharge of ground water to the States/ Union Territories to enable them to formulate area specific Artificial Recharge Schemes to check the declining trend in ground water levels.

- Preparation of a conceptual report titled "Master Plan for Artificial Recharge to Ground Water".

- Organization of Mass Awareness Programmes and Training Courses on Water management, Rain Water Harvesting and Artificial Recharge to ground water.

- Circulation of a 'Model Bill' in the year 1970 which was re-circulated in 1992 and again in 1996 to all the States & UTs to enable them to enact suitable legislation for regulation and control of ground water development and management. The Bill has again been modified incorporating provision for rain water harvesting and has been circulated in 2005.

- Constitution of "Artificial Recharge to Ground Water Advisory Council, chaired by the Union Minister of Water Resources and with eminent personalities from various walks of life as members.

- Institution of National Water Award and Ground Water Augmentation Awards to encourage local initiatives for ground water conservation and augmentation. Issuance of directions to all the Chief Secretaries of States having Overexploited blocks to take all necessary measures to promote/ adopt artificial recharge to ground water/ rain water harvesting including making mandatory provision of roof top rain water harvesting.

- Directives to Group Housing Societies, Institutions/ Schools, Hotels, Industrial establishments and farm houses in notified areas of NCT Delhi and Haryana State to adopt roof top rain water harvesting systems.

- All Group Housing Societies located in NCT Delhi in areas where ground water levels are more than 8 m and are abstracting ground water have also been directed to adopt roof top rain water harvesting systems."

4.10 The Committee note that the allocation for 2008-09 for Minor Irrigation Schemes (Plan) was Rs.104.10 crore which was reduced to 89.70 crore i.e. Rs.14.40 crore less and during 2009-10 it has been further reduced to Rs.76 crore. It was stated that the allocation was revised due to non procurement of drilling rigs, ban on procurement of vehicles, non-creation of sanctioned posts at Rajiv Gandhi NGTRI and non finalization of land and building plan under infrastructure development. The allocation during 2009-10 has been reduced due to rescheduling of the purchase of deep drilling rigs and the equipment and non-creation of sanctioned posts at RGNGTRI. The Committee feel that the reduced allocations at RE 2008-09 stage and further reduction at BE 2009-10 stage reflects poor

planning and slackness in procurement of equipments. The Committee desire the Ministry to take prompt action to avoid delays and streamline the process of procurement of equipment.

4.11 The Scheme of Ground Water Management and Regulation was launched at a cost of Rs.460 crore for implementation by the Central Ground Water Board during the XI Plan. The allocation for BE 2008-09 was Rs.95.00 crore and Rs.84.29 crore at RE stage and for 2009-10 it is Rs.70.00 crore. The demonstrative projects on Artificial Recharge to Ground Water and Rain Water Harvesting have been proposed to be taken up at a cost of Rs.100 crore with total funding by Central Government. The States of Kerala, West Bengal, Punjab, Arunachal Pradesh, Tamil Nadu, Orissa, Andhra Pradesh, Madhya Pradesh and Karnataka have taken interest in the Scheme and submitted proposal for setting up demonstrative projects. Some basic exercises for identification of project sites have been taken up so far and DPRs are being prepared where CGWB is helping the States. A total of 75 artificial recharge projects consisting of 1,300 structures are proposed for construction during XI Plan whereas 475 structures in 7 States have been approved by State level Committees. The proposals for construction of 317 structures at an estimated cost of Rs.1,070 lakh are being examined by CGWB. The Government has taken several steps to encourage recharge of Ground Water and Rain Water Harvesting. The Committee at this point of time expect the Ministry to implement these projects at the earliest so that the benefit in the form of increase in ground water level becomes visible so that other States are encouraged to adopt these measures which in turn would considerably ward off the threat of climate change. The Committee hope that the work of examination of the proposals for construction of 317 structures be completed expeditiously but within a definitive timeframe.

CHAPTER - V

FLOOD CONTROL

5.1 Every year some part or the other of the country gets flooded. To control / manage the floods, a multi-pronged approach consisting of measures of prevention, protection, management, forecasting and early warning are needed. The schemes covered under the 'Flood Control' are Flood Forecasting, River Management Activities and Water Works related to Border Areas and Infrastructure Development. The Budget allocations for Flood Control are given below :

(Rs. in crore)

Name of Scheme	Year	Plan	Non-Plan	Total
Flood Control	BE 2008-09	211.00	40.40	251.40
	RE 2008-09	197.84	56.00	253.84
	BE 2009-10	234.80	61.45	296.25

5.2 The Plan allocation for Flood Control for the year 2008-09 was earmarked at Rs.211.00 crore. However, it was reduced to Rs.197.84 crore at the Revised Estimate stage for the same financial year and again increased to Rs. 234.80 crore for 2009-10. When Committee desired to know the reasons for reduced allocation at 2008-09 at RE stage, the Committee were informed that the reason was the slow progress of investigation works of Sapta Kosi High Dam Project and anti-erosion works undertaken by Brahmaputra Board and the delay in the procurement of telemetry equipments required for modernization of Flood Forecasting system.

5.3 The Committee asked the Ministry to explain the reasons for increase in Plan allocation in BE 2009-10 to Rs. 234.80 crore, i.e. an increase of Rs.23.80 crore and also increased outlay for River Management activities for 2009-10 to Rs.199.30 crore against Rs.160.00 crore in 2008-09. The Ministry in their reply submitted as under :-

> "Increase in allocation of BE 2009-10 is due to unprecedented breach in Eastern Afflux Bund of Kosi Barrage in August, 2008 near Kusaha (Nepal). Grants-in-aid was provided to the Government of Bihar for breach closure works. The total estimated cost of the breach closure works was approved as Rs.143.42 crore; out of which Rs. 69.90 crore was released during 2008-09. The remaining

assistance is being released during the current financial year. In addition to the above, the grant-in-aid to the State Governments of West Bengal and Tripura has been provided for undertaking the bank protection works along the common border rivers with Bangladesh and the grant-in-aid to J & K Government would be released shortly to undertake bank protection works in Jammu sector for protection of security check posts and other strategic installations."

5.4 Under the Scheme, the River Management Activities are supported by the Ganga Flood Control Commission, Brahmaputra Board etc. The Plan document says that flood can be managed efficiently by water- shed management work for which the Nodal Ministry is Agriculture should work out a detailed programme in consultation with Ministry of Water Resources. Other method is to preserve and augment flood cushions like natural swamps and lakes which can be developed into detention basins. In response to a query of the Committee as to what specific efforts are being made to manage the floods in the country, the Ministry in their reply stated as under :

"Under 'River Management Activities and Works related to Border Areas', a number of reservoir schemes namely, Pancheshwar Multipurpose Project, Sapta Kosi High Dam Multipurpose Project, Kamla Multipurpose Project, Bagmati Multipurpose Project are being investigated jointly with Government of Nepal, which would provide flood relief to the eastern part of Uttar Pradesh and North Bihar after implementation. The flood affected States are also being provided Grants-in-aid for repairs and maintenance of the flood protection works along the Indo-Nepal border on rivers coming from Nepal."

5.5 Research and Development activities require more attention in the management of flood. When asked to give details of the steps taken to increase and encourage the R&D activities in the area of Flood Management, the Ministry in a written reply submitted as under :

"Ganga Flood Control Commission and Brahmaputra Board have been set up to prepare the master plan for flood management in the Ganga basin and Brahmaputra basin respectively. The master plans prepared by them have been forwarded to the concerned states for early implementation of the works proposed in the master plans. Studies are undertaken by flood management centre of NIH located at Patna and Guwahati. Assistance is also provided to academic/research institutions in this regard."

5.6 The outlay on Flood Forecasting for the year 2008-09 has been increased to Rs. 25 crore in comparison to Rs. 23 crore at BE 2008-09. When asked to furnish the details of the works / schemes which are being covered under the Flood Forecasting Scheme, the Ministry informed that the Central Water Commission maintains a network of hydrological observation sites along the major river systems in the

country and issues level forecast for 147 towns/ cities and inflow forecast for 28 major reservoirs during flood season. The list of forecasting stations is given at *Appendix-III***.**

5.7 The objective of the scheme is to strengthen and improve the flood forecasting and inflow forecasting network in India and development of forecast information system. The Committee desired to know as to what advancement in forecasting the flood / inflow has been made in the last few years. The Committee were informed that the satellite based communication system in the following river system has been set up :

a. Godavari basin
b. Krishna basin
c. Brahmaputra basin
d. Damodar basin
e. Yamuna basin
f. Mahanadi Basin
g. Chambal Basin

5.8 The Ministry further informed that the accuracy in the flood forecast achieved by Central Water Commission is around 95%. Efforts are being made to modernize the flood forecasting activities particularly the communication systems during the XIth plan.

5.9 According to the National Water Policy 2002 on an average, the flood affected areas are 7.5 Mha during a year whereas 40 Mha of land are flood prone in the country. When asked whether Government has prepared any master plan flood prone areas specially Karnataka, Andhra Pradesh and North Bihar. The Secretary, Ministry of Water Resources during evidence *inter-alia* stated as under :

> "The master plan for flood management has been prepared for Brahmaputra basin and Ganga basin only. For Ganga basin, it has been prepared by the Ganga Flood Control Commission and for the Brahmaputra basin, it has been prepared by the Brahmaputra Board. Now, so far as individual projects under flood management programme are concerned, the States have to prepare the Detailed Project Report and submit them to the Central Government for assistance. As soon as we receive the project proposals from the States, we examine them and include them in the flood management programme and provide the central assistance to them."

5.10 The Committee desired to know if the Central Government has given any directions to the State Governments to prepare master plans for control of flood in the rivers flowing in their States. The Secretary during evidence stated that at the moment there was no scheme for preparation of master plan in other basins other than Brahmaputra Basin and Ganga Basins. But the States can prepare their own master plan, prepare the DPRs, send them to the Ministry of Water Resources so that the same could be supported.

5.11 The flood problem in Uttar Pradesh and Bihar is of recurring nature. This is primarily due to the rivers flowing from Nepal. The Committee wanted to know if there is some policy to give relief to the people affected by the floods in U.P. and Bihar. The representative of the Ministry during evidence stated that there are two possible solutions to check the floods. One is that the two sites identified by the Ministry on these rivers where high dams should be built. During rainy season the water will be stored there and used later on. Another solution is very limited. That is to allow the river to flow within the embankments.

5.12 The Secretary, Ministry of Water Resources also added that there are two solutions and the Ministry is working on both the fronts. First is that there is a joint Committee on Water Resources with Nepal. Everything related to Water Resources is discussed during the meetings of the Committee including Saptkoshi Dam, Pancheshwar Dam. There has been discussion on construction of High Dams on the side of Nepal and the response is positive. If there is delay in this front then the flow of rivers can be controlled in such a manner that it flows in between the embankments.

5.13 The Committee note that under the 'Flood Control' Programme, various schemes are covered which include Flood Forecasting, River Management Activities and Water Works related to Border Areas. The allocation under Plan head was Rs. 211 crore in 2008-09 which was reduced to Rs. 197.84 crore due to delay in procurement of telemetry equipments required for modernization of flood forecasting system and also slow progress of investigation works of Sapta Kosi High Dam Project and anti-erosion works undertaken by Brahmaputra Board. The allocation was increased to Rs. 234.80 crore for 2009-10, i.e. an increase of Rs. 23.80 crore. Also under River Management activities Rs. 199.30 crore have been allocated. The increase, according to Ministry, is due to Grants-in-aid provided to Government of Bihar for closure of breach in Eastern Afflux Bund of Kosi Barrage in August 2008, and also to Government of West Bengal, Tripura and Jammu & Kashmir for river bank protection. The grant-in-aid to the J & K Government would be released shortly to undertake bank protection works in Jammu sector for protection of security check posts and other strategic installations. The Committee are dismayed that the allocation for 2008-09 was reduced for such an important programme for want of proper foresight, planning and administrative action. The

Committee also desire that the grant-in-aid to J & K Government be released expeditiously so that vital works are undertaken and executed without further delay.

5.14 The Committee note that Ganga Flood Control Commission and Brahmaputra Board prepare the master plans for management of flood in the respective river basins. Also flood management centre of NIH at Patna and Guwahati also undertake studies. Assistance is also provided to academic/research institutions in this regard to promote R & D activities in flood management. Under the Flood Forecasting Scheme, the Central Water Commission maintains a network of hydrological observation sites along the major river systems in the country and issue level forecast for 147 towns / cities and inflow forecast for 28 major reservoirs during flood seasons. The satellite based communication system has also been set-up in seven major river basins of the country. The Committee are happy to note that efforts are being made to modernize the flood forecasting activities particularly the communication systems during XI Plan. They expect the Ministry to make vigorous efforts to modernize the flood forecasting, instant information sharing with States concerned and also undertake R & D activities for flood management to minimize the devastation and the resultant human agonies.

5.15 The Committee note that the problem of floods in the States of Uttar Pradesh and Bihar are recurring in nature and primarily due to the rivers flowing from Nepal. These floods can be managed only by constructing dams / reservoirs on the rivers inside Nepal and not in the Indian territory due to topographical reasons. The Committee, therefore, expect the Ministry of Water Resources to make all out and concerted efforts to pursue the Government of Nepal through diplomatic channels and also at the highest level in the Government so that the Government of Nepal in a spirit of mutual benefit and long term gain agree to the construction of dams. Needless to say such dams would be the monuments of our enduring relationship and give a new stimulus and fillip to the deep and long-abiding friendly relations between the peoples of India and Nepal.

CHAPTER-VI

REPAIR, RENOVATION AND RESTORATION OF WATER BODIES

6.1 A Pilot Project namely 'National Project for Repair, Renovation & Restoration of Water Bodies was launched in January 2005 with an estimated cost of Rs. 300.00 crore to be shared by Centre and State in the ratio of 3:1 for 26 districts in 15 States to augment and restore the capacity of water bodies and to recover and expand their irrigation potential. These projects cover 1,098 water bodies with total original culturable command area of 1.72 lakh hectares. An additional irrigation potential of 0.78 lakh hectare was targeted under the scheme. Physical works for restoration of 939 water bodies have been completed in 14 States by March 2009.

6.2 When asked about the State-wise details of number of Water Bodies covered / to be covered and the cost involved in implementation of project till date, the Ministry of Water Resources replied as under :

> "A Pilot Scheme on Repair, Renovation and Restoration of Water Bodies was approved in 2005 for implementation during the remaining period of X plan. Proposals were sanctioned for rejuvenation of 1,098 water bodies in 15 states. So far works have been completed in 966 water bodies, works dropped in 16 water bodies and works in remaining 116 water bodies are in progress in the States of A.P., Gujarat, MP, Maharashtra and West Bengal. A Statement indicating the current status of works is at *Appendix-IV*.

6.3 To expand the pilot project, the Government approved two schemes for Repair, Renovation, Restoration of Water Bodies, i.e. one with external (World Bank) budgetary support at a cost of Rs. 6,000 crore and another with domestic budgetary support at a cost of Rs. 4,000 crore. The expansion of the programme envisages comprehensive improvement of selected tank systems, improvement of catchment areas of tank commands, increase in storage capacity of water bodies, ground water recharge, improvement in agriculture and increased availability of drinking water. Under the scheme covered by external assistance, the States may take up projects for funding wherein 75% loan arranged from the World Bank is passed on to them on back to back basis. The balance 25% is taken as liability of Government of India and passed on as Additional Central Assistance (100% grant) to the States for the project.

6.4 The Committee were further informed that the two schemes for Repair, Renovation and Restoration (RRR) of Water Bodies are under implementation during XI plan:

(a) With external assistance :

The scheme targets coverage of 23,000 water bodies. The World Bank loan agreements have been signed to cover 10,887 water bodies in the States of Andhra Pradesh, Karnataka, Orissa and Tamil Nadu. The works have been completed in respect of 602 water bodies in Tamil Nadu. The project of West Bengal Government is under appraisal by World Bank. Gujarat Government has also submitted a proposal under this scheme for rejuvenation of 335 water bodies at a cost of Rs. 239.47 crore.

(b) With domestic support :

The scheme targets coverage of 1 lakh water bodies. Under this scheme 11 States have shown interest covering 8,908 water bodies at the cost of Rs. 2,572.72 crores. State Governments have been requested to initiate project preparation activities with regard to scheme guidelines.
State wise details of number of water bodies covered so far and the cost involved in implementation of the project up to 19 September 2009 are at *Appendix-V*.**"**

6.5 It is observed that out of the sanctioned 1,098 projects, 703 projects belong to States of Andhra Pradesh, Karnataka and Orissa and remaining projects are shared by 12 other States. The Committee desired to know as to what efforts are being made to encourage other States to come forward with proposals for signing agreements with World Bank for restoration of water bodies in their States. The Ministry in their reply stated as under :

"The State Governments have been requested to explore the possibility of submission of the project proposals under World Bank assistance. The projects for the State Governments of Andhra Pradesh, Karnataka, Tamil Nadu and Orissa have already been signed with the World Bank on 08 June 2007, 02 November 2007, 12 February 2007 & 27 January 2009 respectively. The appraisal by the World Bank for West Bengal project is under process. The State Governments are being encouraged to come forward with proposals for World Bank assistance for Repair, Renovation and Restoration of Water Bodies."

6.6 With regard to the present status of the West Bengal Project, the Committee were informed that the proposal of West Bengal for Accelerated Development of Minor Irrigation seeking World Bank Assistance at the cost of Rs. 1,142.5 crore was posed to the World Bank in January 2007. The project includes rejuvenation of 750 tanks having a CCA of 15,000 ha. at the cost of Rs. 150 crores. The project preparation work is likely to be completed by 30 June 2010.

6.7 The Committee note that a pilot project for Repair, Renovation and Restoration of Water Bodies was launched in January 2005 in 26 districts of 15 States to augment and restore the capacity of water bodies and expand their irrigation potential. These projects cover 1,098 water bodies with total original culturable command area of 1.72 lakh ha. An additional irrigation potential of 0.78 lakh

ha. was targeted under the Scheme. So far 966 water bodies have been restored in 15 States. The Committee regret to note that the pace of restoration of water bodies is rather slow as 966 Water Bodies have been restored so far against a small target of 1,098 water bodies. The Committee, therefore, recommend that the Ministry make concerted efforts to restore expeditiously the remaining 116 water bodies for which the work is in progress.

6.8 The Committee note that the Government with a view to expand the project, approved two schemes one with external assistance, i.e. from World Bank and another with domestic support for implementation during XI Plan. The scheme envisages comprehensive improvement of selected tank systems, catchment area of tank commands, increase in storage capacity of water bodies, ground water recharge, increased agriculture and availability of drinking water. With external assistance, 23,000 water bodies have been targeted whereas agreements have been signed with the World Bank to cover 10,887 additional water bodies. The works have been completed in respect of 602 water bodies. Under the domestic support, one lakh water bodies are covered where 11 States have shown interest covering 8,908 water bodies. According to the Ministry, the State Governments have been requested to explore the possibility of submission of more projects for approval under World Bank Scheme. It is surprising to note that under the scheme with external assistance against a target of 23,000 Water Bodies, agreements have been signed with the World Bank to cover only 10,887 Water Bodies and the work has been completed in 602 Water Bodies only. In the case of the scheme under domestic support against 1 lakh Water Bodies, 11 States have shown interest in 8,908 Water Bodies only. Considering the immense benefits that will accrue to the nation, the Committee desire the Ministry to take up the matter at the highest level with the remaining State Governments to come forward with their projects under the Scheme with World Bank assistance and also the scheme with domestic support.

The Committee hope and expect that the project preparation work for the West Bengal project will be completed by the scheduled date, i.e. 30 June 2010.

NEW DELHI
25 November, 2009
04 Agrahayana, 1931(Saka)

BENI PRASAD VERMA,
Chairman,
Standing Committee on Water Resources

Appendix-I
(Para 2.4)

BUDGET AT A GLANCE
(SECTOR-WISE)

(**Rupees in crore**)

Sl No.	Sector/ Organisation /Scheme	Actuals 2007-08		BE 2008-09		RE 2008-09		BE 2009-10		Total
		Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
I	**Secretariat-Economic Services**									
1.	Ministry of Water Resources (prop.)	0.00	14.41	0.00	19.13	0.00	19.58	0.00	21.00	21.00
2.	Ravi-Beas Waters Tribunal	0.00	0.63	0.00	0.75	0.00	0.75	0.00	0.80	0.80
3.	Cauvery Water Disputes Tribunal	0.00	1.19	0.00	1.37	0.00	1.45	0.00	1.60	1.60
4.	Krishna Water Disputes Tribunal	0.00	1.09	0.00	1.28	0.00	1.17	0.00	1.40	1.40
	Total : Secretariat-Economic Services	**0.00**	**17.32**	**0.00**	**22.53**	**0.00**	**22.95**	**0.00**	**24.80**	**24.80**
II	**Major & Medium Irrigation**									
1.	**Central Water Commission** Direction & Administration	0.00	13.81	0.00	14.25	0.00	15.97	0.00	23.00	23.00
2.	Data Collection	0.00	46.35	0.00	44.65	0.00	47.35	0.00	69.22	69.22
3.	Training	0.00	0.42	0.00	0.57	0.00	0.60	0.00	0.65	0.65
4.	Research	0.00	0.87	0.00	1.11	0.00	1.50	0.00	1.60	1.60
5.	Survey & Investigation	0.00	5.16	0.00	3.25	0.00	4.50	0.00	4.50	4.50
6.	Consultancy	0.00	13.88	0.00	13.56	0.00	18.00	0.00	20.00	20.00
7.	Contribution to international bodies	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.01	0.01
8.	Exhibition and Trade Fair	0.00	0.13	0.00	0.30	0.00	0.30	0.00	0.30	0.30
9.	Modernization of equipment CWC Offset Press	0.00	0.19	0.00	0.25	0.00	0.25	0.00	0.35	0.35
10.	Seminars and conferences on water resources on water	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11.	Cell for monitoring externally aided projects	0.00	0.44	0.00	0.45	0.00	0.50	0.00	0.60	0.60
12.	Water Planning Wing	0.00	0.92	0.00	0.93	0.00	1.25	0.00	1.40	1.40
13.	Hydrological observations in Chenab basin	0.00	1.20	0.00	1.35	0.00	1.50	0.00	1.60	1.60
14.	National Water Academy	1.86	0.00	2.30	0.00	2.64	0.00	2.60	0.00	2.60
	Total : CWC	**1.86**	**83.37**	**2.30**	**80.68**	**2.64**	**91.73**	**2.60**	**123.23**	**125.83**
15.	Central Soil and Materials Research Station	0.00	4.31	0.00	4.85	0.00	4.82	0.00	5.00	5.00
16.	Central Water & Power Research Station	0.00	18.24	0.00	17.00	0.00	22.10	0.00	25.00	25.00

Sl No.	Sector/ Organisation /Scheme	Actuals 2007-08		BE 2008-09		RE 2008-09		BE 2009-10		Total
		Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
17.	National Institute of Hydrology	0.00	5.18	0.00	5.20	0.00	5.20	0.00	5.30	5.30
18.	Sardar Sarovar Construction Advisory Committee	0.00	0.43	0.00	0.51	0.00	0.58	0.00	0.90	0.90
19.	Bansagar Control Board	0.00	0.11	0.00	0.16	0.00	0.16	0.00	0.23	0.23
20.	Sutlej Yamuna Link Canal Project	0.00	0.00	0.00	25.00	0.00	15.00	0.00	22.00	22.00
21.	Upper Yamuna River Board	0.00	0.37	0.00	1.58	0.00	1.08	0.00	1.84	1.84
22.	Research and Development Programme	33.28	0.00	60.00	0.00	60.00	0.00	52.00	0.00	52.00
23.	Development of Water Resources Information System	18.65	0.00	46.00	0.00	45.10	0.00	70.00	0.00	70.00
24.	Hydrology Project	6.98	0.00	44.00	0.00	25.51	0.00	38.10	0.00	38.10
25.	Investigation of Water Resources Development Schemes	25.09	0.00	37.00	0.00	37.59	0.00	42.00	0.00	42.00
26.	Information, Education and Communication	1.32	0.00	13.00	0.00	13.00	0.00	12.00	0.00	12.00
27.	River Basin Organization/ Authority	0.00	0.00	1.00	0.00	0.01	0.00	0.50	0.00	0.50
28.	Dam Safety Studies and Planning	0.48	0.00	1.60	0.00	0.58	0.00	1.00	0.00	1.00
29.	Infrastructure Development	1.33	0.00	5.00	0.00	2.35	0.00	1.00	0.00	1.00
30.	National Projects Construction Corporation Limited	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
	Total: Major & Medium Irrigation	**88.99**	**112.01**	**209.90**	**134.98**	**186.78**	**140.67**	**219.20**	**183.51**	**402.71**
III	**Minor Irrigation**									
1.	Central Ground Water Board	0.00	59.51	0.00	57.70	0.00	82.80	0.00	94.99	94.99
2.	Rajiv Gandhi NGWTRI	0.60	0.00	2.10	0.00	0.81	0.00	2.00	0.00	2.00
3.	Ground Water Management and Regulation	48.11	0.00	95.00	0.00	84.29	0.00	70.00	0.00	70.00
6.	Infrastructure Development	1.27	0.00	7.00	0.00	4.60	0.00	4.00	0.00	4.00
	Total : Minor Irrigation	**49.98**	**59.51**	**104.10**	**57.70**	**89.70**	**82.80**	**76.00**	**94.99**	**170.99**
IV. 1.	**Command Area Development** Command Area Development Programme #	277.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total: Command Area Development	**277.84**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.000**

Sl No.	Sector/ Organisation /Scheme	Actuals 2007-08		BE 2008-09		RE 2008-09		BE 2009-10		Total
		Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	Plan	Non-Plan	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
V.	**Flood Control**									
	Central Water Commission									
1.	Flood Data Collection	0.00	36.48	0.00	35.00	0.00	50.00	0.00	55.00	55.00
2.	Payment to Government of Bhutan for maintenance of flood forecasting and warning centres	0.00	0.71	0.00	0.80	0.00	1.00	0.00	1.20	1.20
3.	Strengthening and modernization of flood forecasting and hydrological network in Brahmaputra and Barak Basin	0.00	1.58	0.00	1.60	0.00	2.00	0.00	2.25	2.25
	Total : CWC	**0.00**	**38.77**	**0.00**	**37.40**	**0.00**	**53.00**	**0.00**	**58.45**	**58.45**
4.	Emergent Flood Protection Measures in Eastern and Western Sectors	0.00	1.32	0.00	3.00	0.00	3.00	0.00	3.00	3.00
5.	Schemes for the benefit of North Eastern States & Sikkim -Pagladia Dam Project	1.35	0.00	2.00	0.00	1.00	0.00	0.50	0.00	0.50
6.	Flood Forecasting	13.91	0.00	23.00	0.00	22.22	0.00	25.00	0.00	25.00
7.	River Management Activities and Works related to Border Areas	51.44	0.00	160.00	0.00	160.50	0.00	199.30	0.00	199.30
8.	Infrastructure Development	1.54	0.00	26.00	0.00	14.12	0.00	10.00	0.00	10.00
	Total : Flood Control	**68.24**	**40.09**	**211.00**	**40.40**	**197.84**	**56.00**	**234.80**	**61.45**	**296.25**
VI.	**Other Transport Services**	30.99	18.31	75.00	19.24	75.68	28.25	70.00	32.00	102.00
1.	Farakka Barrage Project									
2.	Jangipur Barrage	0.00	1.52	0.00	1.75	0.00	2.00	0.00	2.25	2.25
3.	Feeder Canal	0.00	3.09	0.00	3.40	0.00	3.54	0.00	4.00	4.00
	Total : Transport Services	**30.99**	**22.92**	**75.00**	**24.39**	**75.68**	**33.79**	**70.00**	**38.25**	**108.25**
	TOTAL (I to VI) *	**516.04**	**251.85**	**600.00**	**280.00**	**550.00**	**336.22**	**600.00**	**403.00**	**1003.00**
VII.	**AIBP and other Water Resources Programme ****	**5445.71**	**0.00**	**5550.00**	**0.00**	**7850.00**	**0.00**	**8700.00**	**0.00**	**8700.00**
	GRAND TOTAL	**5961.75**	**251.85**	**6150.00**	**280.00**	**8400.00**	**336.22**	**9300.00**	**403.00**	**9703.00**

*Source of financing : *Demand No.103 – Ministry of Water Resources for 2009-2010 (excluding AIBP) ** Details shown in Demand No. 35- Ministry of Finance (Transfers to State and Union Territory Governments). # Scheme has been transferred to State Sector w.e.f. 2008-09*

Appendix- II
(Para No.2.17)

List of National projects

Sl. No.	Name of the Project	1) Irrigation (ha.) 2) Power (MW) 3) Storage (MAF)	State
1	Teesta Barrage	1) 9.23 lakh 2) 1000 MW 3) Barrage	West Bengal
2	Shahpur Kandi	1) 3.80 lakh 2) 300 MW 3) 0.016 MAF	Punjab
3	Bursar	1) 1 lakh (indirect) 2) 1230 MW 3) 1 MAF	J&K
4	2nd Ravi Vyas Link	Harness water flowing across border of about 3 MAF	Punjab
5.	Ujh multipurpose project	1) 0.32 lakh ha 2) 280 MW 3) 0.66 MAF	J&K
6.	Gyspa project	1) 0.50 lakh ha 2) 240 MW 3) 0.6 MAF	HP
7.	Lakhvar Vyasi	1) 0.49 lakh 2) 420 MW 3) 0.325 MAF	Uttranchal
8.	Kishau	1) 0.97 Lakh 2) 600 MW 3) 1.04 MAF	HP/Uttranchal
9.	Renuka	1) Drinking water 2) 40 MW 3) 0.44 MAF	HP
10.	Noa-Dehang Dam Project	1) 8000 ha. 2) 75 MW 3) 0.26 MAF	Arunanchal Pradesh
11.	Kulsi Dam Project	1) 23,900 ha. 2) 29 MW 3) 0.28 MAF	Assam
12.	Upper Siang	1) Indirect 2) 9500 MW 3) 17.50 MAF 4) Flood moderation	Arunanchal Pradesh
13	Gosikhurd	1) 2.50 lakh 2) 3 MW 3) 0.93 MAF	Maharashtra
14	Ken Betwa	1) 6.46 lakh 2) 72 MW 3) 2.25 MAF	Madhya Pradesh

Appendix-III
(Para No.5.6)

Distribution of Existing Flood Forecasting Stations

(A) Basin-wise distribution

Sl. No.	Name of River-systems	Number of flood forecasting Stations		
		Level	Inflow	Total
1	Ganga & Tributaries	77	10	**87**
2	Brahmaputra & Tributaries	27	-	**27**
3	Barak-System	05	-	**05**
4	Eastern-Rivers	08	01	**9**
5	Mahanadi	03	01	**04**
6	Godavari	14	04	**18**
7	Krishna	03	06	**09**
8	West flowing Rivers	09	06	**15**
9	Pennar	01	-	**01**
Total		**147**	**28**	**175**

(B) State-wise distribution

Sl. No.	Name of State/UT	Number of flood forecasting Stations		
		Level	Inflow	Total
1	Andhra Pradesh	9	7	**16**
2	Assam	24	0	**24**
3	Bihar	32	0	**32**
4	Chhatisgarh	1	0	**1**
5	Gujarat	6	5	**11**
6	Haryana	0	1	**1**
7	Jharkhand	1	4	**5**
8	Karnakata	1	3	**4**
9	Madhya Pradesh	2	1	**3**
10	Maharashtra	7	2	**9**
11	Orissa	11	1	**12**
12	Tripura	2	0	**2**
13	Uttar Pradesh	34	1	**35**
14	Uttarakhand	3	0	**3**
15	West Bengal	11	3	**14**
16	Dadra & Nagar Haveli	1	0	**1**
17	NCT of Delhi	2	0	**2**
	Total	**147**	**28**	**175**

Appendix-IV
(Para No.6.2)

Details of work sanctioned under the Pilot Scheme of Repair, Renovation & Restoration of Water Bodies

S. No.	State	Sanctioned	Completed	Dropped	In Progress
1	Andhra Pradesh	278	260	4	14
2	Chhattisgarh	10	10		0
3	Gujarat	42	38		4
4	Himachal Pradesh	13	13		0
5	J&K	22	22		0
6	Jharkhand	60	58	2	0
7	Karnataka	298	297	1	0
8	Kerala	23	22	1	0
9	Madhya Pradesh	70	5		65
10	Maharashtra	32	1		31
11	Orissa	127	127		0
12	Rajasthan	5	5		0
13	Tamil Nadu	46	44	2	0
14	West Bengal	66	58	6	2
15	Bihar	6	6		0
	Total	**1098**	**966**	**16**	**116**

Appendix-V
(Para No.6.4)

No. of Water Bodies covered and Details of Funds Released under the Scheme

Sl. No.	Name of State	No. of Water Bodies Covered	Central share Released (Rs.in crore)
1	Andhra Pradesh	3278	52.85
2	Bihar	6	1.40
3	Chhattisgarh	10	1.68
4	Gujarat	42	9.15
5	H P	13	0.78
6	J & K	22	2.30
7	Jharkhand	60	8.54
8	Karnataka	1522	55.33
9	Kerala	23	2.06
10	Madhya Pradesh	70	28.02
11	Maharashtra	32	13.83
12	Orissa	1027	19.45
13	Rajasthan	5	5.21
14	Tamil Nadu	5809	143.29
15	West Bengal	66	13.92
	Total	11985	357.81

Appendix-VI

MINUTES OF THE SECOND SITTING OF THE STANDING COMMITTEE ON WATER RESOURCES (2009-10) HELD ON THURSDAY, 24 SEPTEMBER 2009

The Committee sat from 1500 hours to 1630 hours in Committee Room 'B', Ground Floor, Parliament House Annexe, New Delhi.

PRESENT

Shri Beni Prasad Verma – Chairman

MEMBERS

LOK SABHA

2. Shri Ghanshyam Anuragi
3. Shri Mahendrasinh P. Chauhan
4. Shri Sher Singh Ghubaya
5. Shri Virender Kashyap
6. Shri K.R.G. Reddy
7. Shri S.P.Y. Reddy
8. Shri K. Shivkumar alias J.K. Ritheesh
9. Smt. Annu Tandon
10. Dr. P. Venugopal (Tiruvallur)
11. Shri Sajjan Verma

RAJYA SABHA

12. Smt. Syeda Anwara Taimur
13. Dr. Gyan Prakash Pilania
14. Shri Anil Madhav Dave
15. Shri Kumar Deepak Das

SECRETARIAT

1.	Shri Devender Singh	-	Joint Secretary
2.	Shri B.S. Dahiya	-	Director

REPRESENTATIVES OF MINISTRY OF WATER RESOURCES

1. Shri U.N. Panjiar, Secretary, WR
2. Shri R.C. Jha, Member (RM), CWC
3. Shri B.M. Jha, Chairman, CGWB
4. Shri M.E. Haque, Commissioner (PP), WR

At the outset, the Chairman welcomed the Members to the sitting of the Committee and asked the Members, who attended the sitting for the first time, to introduce themselves. Thereafter, the Chairman welcomed the representatives of the Ministry of Water Resources to the sitting of the Committee convened to take their evidence on the Demands for Grants (2009-10) pertaining to the Ministry and requested them to introduce themselves before the discussion on the subject began.

2. After the introduction, the Secretary, Ministry of Water Resources briefed the Committee about the working of different wings / offices of the Ministry of Water Resources. Some of the Members observed that since they were new to the Committee, a power point presentation about the functioning of the Ministry of Water Resources be organised before any discussion on the Demands for Grants is initiated. The Members then sought clarifications pertaining to the Central Water Commission, Major and Medium Irrigation Projects, Minor Irrigation Projects, Central Ground Water Board, Command Area Development Programme, Flood Control and Accelerated Irrigation Benefits Programme, drought situation in Bundelkhand region, etc. The Secretary and other representatives of the Ministry replied to the queries put forth by the Members.

3. The Committee decided to hold another sitting to enable the Ministry of Water Resources to make a detailed presentation about the programmes and schemes under implementation and the future programme of the Ministry.

The verbatim proceedings of the sitting have been kept for record.

The Committee then adjourned.

Appendix-VII

MINUTES OF THE THIRD SITTING OF THE STANDING COMMITTEE ON WATER RESOURCES (2009-10) HELD ON WEDNESDAY, 14 OCTOBER 2009

The Committee sat from 1500 hours to 1745 hours in Room No. 53, First Floor, Parliament House, New Delhi.

PRESENT

Shri Beni Prasad Verma – Chairman

MEMBERS

LOK SABHA

2. Shri Ghanshyam Anuragi
3. Shri Mahendrasinh P. Chauhan
4. Shri Sher Singh Ghubaya
5. Shri Ramashankar Rajbhar
6. Shri S.P.Y. Reddy
7. Shri Arjun Roy
8. Smt. J. Shantha
9. Smt. Annu Tandon
10. Dr. P. Venugopal (Tiruvallur)

RAJYA SABHA

11. Smt. Syeda Anwara Taimur
12. Shri B.S. Gnanadesikan
13. Dr. Gyan Prakash Pilania
14. Shri Kumar Deepak Das
15. Shri Hemant Soren

SECRETARIAT

1.	Shri Devender Singh	-	Joint Secretary
2.	Shri B.S. Dahiya	-	Director

REPRESENTATIVES OF MINISTRY OF WATER RESOURCES

1. Shri U.N. Panjiar, Secretary, WR
2. Shri R.C. Jha, Member (RM), CWC
3. Shri B.M. Jha, Chairman, CGWB
4. Shri M.E. Haque, Commissioner (PP), WR

At the outset, the Chairman welcomed the Members to the sitting of the Committee. Thereafter, the Chairman welcomed the representatives of the Ministry of Water Resources to the sitting of the Committee convened to further consider and examine the Demands for Grants (2009-10) of the Ministry of Water Resources.

2. After the introduction, the Secretary, Ministry of Water Resources gave a brief power point presentation on the working of the Ministry. The Members sought clarifications on various issues relating to Central Water Commission, Major, Medium and Minor Irrigation Projects, Central Ground Water Board, Command Area Development Programme, Flood Control, flood situation in Karnataka, Andhra Pradesh, Uttar Pradesh and Bihar and depletion of water levels in Punjab, creation of utilisable water, repair, renovation and restoration of water bodies, Accelerated Irrigation Benefits Programme, drought situation in Bundelkhand region, etc. The Secretary and other representatives of the Ministry replied to the queries put forth by the Members.

3. The Committee decided to hold next sitting on 27 October 2009 for a briefing on the working of Brahmaputra Board.

The verbatim proceedings of the sitting have been kept for record.

The Committee then adjourned.

Appendix-VIII

MINUTES OF THE FIFTH SITTING OF THE STANDING COMMITTEE ON WATER RESOURCES HELD ON FRIDAY, 13 NOVEMBER 2009

The Committee sat from 1500 hours to 1510 hours in Committee Room 'B', Ground Floor, Parliament House Annexe, New Delhi.

PRESENT

Shri Beni Prasad Verma – Chairman

MEMBERS

LOK SABHA

2. Shri Ghanshyam Anuragi
3. Shri Mahendrasinh P. Chauhan
4. Shri Sher Singh Ghubaya
5. Shri Badri Ram Jakhar
6. Shri Haribhau Jawale
7. Shri Ramashankar Rajbhar
8. Shri K.R.G. Reddy
9. Shri S.P.Y. Reddy
10. Shri Arjun Roy
11. Shri G.M. Siddeshwara
12. Dr. P. Venugopal (Tiruvallur)

RAJYA SABHA

13. Smt. Syeda Anwara Taimur
14. Dr. Gyan Prakash Pilania
15. Shri Anil Madhav Dave
16. Shri Ranjitsinh Vijaysinh Mohite-Patil
17. Shri Mangala Kisan
18. Shri Kumar Deepak Das

SECRETARIAT

1.	Shri N.K. Sapra	-	Additional Secretary
2.	Shri Devender Singh	-	Joint Secretary
3.	Shri B.S. Dahiya	-	Director

At the outset, the Hon'ble Chairman welcomed the Members to the sitting of the Committee convened for consideration and adoption of draft Report on 'Demands for Grants' (2009-10) pertaining to the Ministry of Water Resources.

2. Thereafter, the Committee took up the draft Report on 'Demands for Grants (2009-10)' of Ministry of Water Resources for consideration. After some discussion, the Committee adopted the Report without any amendment/modification.

3. The Committee then authorized the Chairman to finalize the Report in view of the changes arising out of factual verification and present the same to both the Houses of Parliament in the ensuing Session.

4. The Committee also decided to select the subject 'Depletion of Ground Water Level' for detailed examination during the year 2009-10.

The Committee then adjourned.

Appendix- IX

STATEMENT OF OBSERVATIONS AND RECOMMENDATIONS

Sl. No.	Para No.	Observation/ Recommendation
1	2	3
1.	2.39	The Committee observe that the Budgetary provisions shown in the Demands for Grants (2009-10) are Rs.1,029.54 crore excluding the funds earmarked for Accelerated Irrigation Benefit Programme (AIBP) and other water resources programmes. There is no change in the Plan side which remains at Rs. 612 crore as it was during 2008-09 at B.E. Stage. The Demand shows an overall increase of Rs. 123.21 crore over the corresponding figure of BE 2008-09. The allocation was reduced under Plan head by 7.03% during 2008-09 at RE stage as compared to BE 2008-09. Whereas on the Non-plan side expenditure was raised by 19.39%, i.e. from Rs. 290.57 crore to Rs. 346.70 crore, in capital section, plan allocation at Rs. 84.00 crore shows a reduction of Rs. 25.00 crore, i.e. 22.93% as compared to Rs. 109.00 crore in BE 2008-09. According to Ministry, the allocations for various activities under the schemes to be supported from the Revenue Head have been made as per the projected requirements. However, the main reason for enhancement of Non-plan allocations is additional expenditure due to increase in salary, increment of staff, increase in DA, etc. The reduction in Plan allocation at RE stage in 2008-09 has mainly due to delay in negotiations with World Bank assisted scheme 'Hydrology Project' and also because of non procurement of some equipment required under Groundwater Management and Regulation. The reduction of allocation under Capital Section (Plan) from Rs.109 crore to Rs. 94.40 crore at RE stage in 2008-09 is primarily for meeting the requirement in 'Farakka Barrage Project' and 'Infrastructure Development' which could not be utilized. The Plan (Revenue) allocation for 2009-10 has been increased primarily for meeting the enhanced requirement for the schemes, viz. Development of Water Resource Infrastructure System, Investigation of Water Resources Development and River Management & works in Border Rivers. The Committee desire that while assessment of requirement is considered, a token allocation should be made where the procurement / scheme has not been finalized to avoid major changes at RE stage and also to avoid huge savings at the end of the year.
2.	2.40	The Committee further note that the actual plan expenditure during 2007-08 was to the extent of 86% which dropped to 73% during 2008-09. The Ministry informed the Committee that the expenditure could not be incurred as per the targets in respect of the schemes 'Ground Water Management and Regulation, Hydrology Project and R&D.' There have been slight shortfalls in some of the schemes also. The Committee desire the Ministry to give greater and focussed attention while assessing the actual requirement of funds during a particular year so that the funds allocated are utilized judiciously and optimally.

3.	2.41	The Committee note that as on 1 April 2009, 43 Utilisation Certificates(UCs) worth Rs. 2.22 crore from 65 institutions and Autonomous Bodies and also 21 UCs worth Rs. 38.38 crore from 25 State Governments were outstanding. According to the Ministry, due to their constant efforts the number of outstanding UCs as on 31 July 2009 in respect of grant released upto 31 March 2007 had come down to 28 for institutions and Autonomous Bodies. However it remained at 21 in respect of State Governments which is stated to be due to non-reconciliation of accounts of the implementing agencies of the States. The Committee, therefore, desire that the Ministry should not allow the States and particularly the autonomous bodies working under them to delay submission of UCs and recommend that the Ministry of Water Resources should set some timeframe for submission of UCs besides introducing penalty clause to ward off such delays. The States should also be asked periodically for reconciliation of accounts of the implementing agencies of the States.
4.	2.42	The Committee note that the Government have declared 14 Projects as 'National Projects' and the irrigation benefit from these projects is estimated to be about 21 lakh ha. apart from additional benefits and availability of drinking water. The Government has also made provision of Rs. 1,800 crore for National Projects out of Rs. 8,000 crore allocation made for AIBP during 2009-10. The Government of Andhra Pradesh submitted proposals for Polavaram and J. Chokkarao Lift Irrigation Scheme. Proposals of Karhar, Bansagar, ERM of Sharda Sahayak Canal, Saryu Nahar, Baghar and Rajghat projects have been submitted by Government of Uttar Pradesh. The Governments of Gujarat, Madhya Pradesh and Orissa are also in the process of giving some proposals for inclusion in the list of National Projects. The Committee further note that since the cost of the Saryu Nahar Project has increased manifold, the State Government is required to get the revised cost approved from the TAC and obtain revised investment clearance from Planning Commission before any further action could be taken. The Committee find that the whole process of inclusion of the projects of State Government in the list of National Projects is exceedingly time consuming and far from encouraging to the State Governments. The Committee, therefore, desire that Ministry should streamline the whole process and encourage the States about the scheme of National Projects so that they come forward with such more proposals.
5.	2.43	The Committee note that in order to address the possible threat posed by climate change, the Prime Minister announced the National Action Plan on Climate Change (NAPCC) on 30 June 2008 which envisages eight National Missions including the National Water Mission (NWM). The Ministry of Water Resources has prepared the draft Mission document and submitted for consideration by Prime Minister's Council on Climate Change. NWM's objectives are 'Conservation of water, minimizing wastage and ensuring equal distribution across and within States'. Also, one of the goals of the NWM is to increase the efficiency of water use. The Committee further note that in view of the strategies proposed, the revisiting of National Water Policy will be undertaken in consultation with the stakeholders particularly the State Governments. It is likely to be discussed in the thirteenth meeting of 'National Water Board.' The Committee expect the Ministry of Water Resources to review the National

		Water Policy and take note of the various suggestions given by the State Governments, and other stakeholders and eminent climatologists keeping in view the looming threat of climate change and the grave scarcity of water in future.
6.	2.44	The Committee also note that the Ministry of Water Resources has set up professorial Chairs, one each in IITs Roorkee, Kanpur, Kharagpur and Guwahati and NITs Srinagar and Patna, to carry out studies in water resources with special emphasis on assessment of the effect of Climate Change on water resources systems. A sum of Rs.1.00 crore towards endowment has been provided for each of the professorial Chair. The Committee would like to be informed of the status of studies so conducted.
7.	2.45	Irrigation is one of the six components for development of rural infrastructure under Bharat Nirman. The Committee note that under Bharat Nirman irrigation potential created during the last four years, i.e. from 2005-06 to 2008-09 is 7.12 Mha against the target of 10 Mha. According to the Ministry of Water Resources the remaining target is proposed to be achieved during the next two years, i.e. 2009-10 and 2010-11. The shortfall in achieving the target is attributed to tardy land acquisition process by States and delay in clearance of project by the Ministry of Environment & Forests. The Committee feel that due to lack of proper communication and coordination between different Departments and implementing agencies the stipulated targets could not be attained by the Ministry. Therefore, they desire the Ministry of Water Resources to make concerted and sustained efforts to overcome delays in clearance of projects. The Committee are optimistic that with prior inter-Ministerial and inter-Governmental consultations, foresight and strict monitoring the implementation of projects would be completed within the stipulated time and funds. The Committee expect the progress report in this regard to be submitted to them periodically.
8.	2.46	The Committee note that according to a recent Study conducted by American researchers and published in on-line edition of the Journal *Nature* dated 12 August 2009, human consumption caused a decline of 109 cubic km in the amount of ground water beneath northern India since 2002. The findings of the Study are similar to that conducted by the Central Ground Water Board related to identification of over exploited blocks (305) in this region. The Government have taken steps to rationalize use of ground water for various uses which include (i) Model Bill circulated to States/UTs for enactment of suitable legislation; (ii) Constitution of Central Ground Water Authority; and (iii) 43 areas of the country notified by CGWA for regulation of Ground Water development and management by concerned DCs/DMs. The Committee observe that law on the pattern of the Model Bill has been enacted so far only in 11 States. The Committee hardly need to emphasise the importance and urgency for proper and efficient use of Ground Water considering the fast receding underground water table. They would, therefore, like the Ministry of Water Resources to chalk out an innovative and attractive strategy so that the remainder States also enact the model legislation. The Committee would also like to be apprised of the specific initiatives made in this direction and the concrete outcome thereof.

9.	2.47	The Committee note that as compared to U.S. where the gross water allocation for use in irrigation is 3 feet per ha., it is 4.8 feet of the gross irrigated area in our country. The overuse reflects a low irrigation efficiency of about 25% to 35% in most irrigation systems with efficiency of 40% to 45% in some exceptional cases. The primary reason identified is the poor infrastructure of irrigation systems including canals, drainage, field channels, etc. The Participatory Irrigation Management (PIM) has proved very useful in maintenance of village level distribution channels through Water Users Associations (WUAs). Fourteen States have so far enacted the PIM Legislation. The Ministry of Water Resources has been periodically pursuing the matter with the State Governments through different channels. The Committee are happy to note that the number of WUAs has increased to 56,934. These WUAs help in maintaining the field channels of irrigation system and reduce the workload of Government machinery. However, the Committee desire that WUAs should be given more powers and funds so that they can maintain the irrigation infrastructure with greater ease and efficiency. They also desire the Ministry of Water Resources to pursue the matter of enactment of PIM Legislation at the highest level in those State Governments which are yet to enact such a legislation.
10.	2.48	The Committee also note that the Government has launched Farmers' Participatory Action Research Programme under which plots of 5,000 farmers were selected in different parts of the country and the demonstrative schemes were executed with the help of agricultural universities/institutes and other institutions. The demonstrations were given to show how by using less quantity of water more results can be achieved. National Water Mission (NWM) also emphasised on increasing efficiency in water use in all sectors. Regrettably, the Ministry does not have any programme to promote water use efficiency directly, contending that all the schemes are implemented by State Governments though under Command Area Development Programme and ERM programme, water use efficiency is being promoted indirectly by MoWR. The Committee, therefore, desire the Ministry of Water Resources to play a greater proactive role in close concert and coordination with the Agriculture ministry to encourage micro irrigation system which will help in utilizing the available water and irrigation infrastructure optimally with a view to serve more people/areas.
11.	3.14	The Budget allocation (Plan) for Major & Medium Irrigation for the year 2008-09 was Rs. 209.90 crore which was reduced to Rs.186.78 crore at RE stage. The reason for reduction at RE 2008-09 stage was mainly in two schemes i.e. Hydrology Project where delay took place in negotiations in respect of World Bank assisted schemes and Research and Development where allocation was reduced by Rs.10.00 crore in view of delay in completion of some specific activities related to geomorphological studies and Farmers Participatory Action Research Programme. The Committee are inclined to believe that had the Ministry done intensive monitoring of the physical and financial targets for each of the schemes there would have been optimal utilization of the allocated funds within the prescribed time period. The increase in allocation for 2009-10 by Rs.9.30 crore is primarily for the scheme "Development of Water Resources Information System' as per the actual requirement. The Committee are perturbed to note that allocations were reduced during 2008-09 at RE stage due to delay in Hydrology project and R&D as they feel that delay not only affects the growth

		but also leads to increase in the cost of the work. The Committee, therefore, desire that Ministry should take concrete steps to avoid delays on their part particularly in projects like R&D so vital in the implementation of the project/scheme.
12.	3.15	The Committee note that 477 on-going projects (166 Major, 222 Medium and 89 ERM) have spilled over to XI Plan. Also 309 new projects (78 Major, 145 Medium and 86 ERM) were proposed to be taken up during the XI Plan. Out of 477 projects 26 Major, Medium and ERM projects have been completed and 39 new Major / Medium projects have been taken up under AIBP so far. Keeping in view the pace of completion of projects, and the past trends, the Committee are apprehensive whether the projects so selected would be completed within the scheduled timeframe. The Committee were informed that the information on other projects taken up by the State Governments will be collected and submitted as soon as possible. The Committee desire the Ministry to take immediate steps to increase the pace of implementation of projects so that the farmers reap the benefits of the irrigation potential created.
13.	3.16	The Committee note that the ultimate irrigation potential is 140 Mha whereas 34 Mha is yet to be created. Under MMI the ultimate irrigation potential is 54.465 Mha out of which 42.277 Mha has been created upto the end of Tenth Plan. The target for XI Plan is 9.0 Mha. The Committee note that the targets were not achieved in the past inspite of the assistance given under AIBP. According to the Ministry, bottlenecks in the implementation of the projects have been brought to the knowledge of the concerned authorities for taking necessary action for early completion of the projects. The Committee further note that against the irrigation potential created to the extent of 42.277 Mha, the utilization of irrigation potential was 34.42 Mha upto X Plan, i.e. 81% of the created potential has been utilized. The Ministry is providing assistance under CADWM programme to increase the utilization of created potential. The Committee are perturbed to note that despite providing assistance under AIBP, the targets set for creation of irrigation potential are yet to be achieved. The Committee desire the Ministry to look into the causes of the underutilization and take appropriate and effective steps to increase the utilisation of irrigation potential.
14.	4.10	The Committee note that the allocation for 2008-09 for Minor Irrigation Schemes (Plan) was Rs.104.10 crore which was reduced to 89.70 crore i.e. Rs.14.40 crore less and during 2009-10 it has been further reduced to Rs.76 crore. It was stated that the allocation was revised due to non procurement of drilling rigs, ban on procurement of vehicles, non-creation of sanctioned posts at Rajiv Gandhi NGTRI and non finalization of land and building plan under infrastructure development. The allocation during 2009-10 has been reduced due to rescheduling of the purchase of deep drilling rigs and the equipment and non-creation of sanctioned posts at RGNGTRI. The Committee feel that the reduced allocations at RE 2008-09 stage and further reduction at BE 2009-10 stage reflects poor planning and slackness in procurement of equipments. The Committee desire the Ministry to take prompt action to avoid delays and streamline the process of procurement of equipment.

15.	4.11	The Scheme of Ground Water Management and Regulation was launched at a cost of Rs.460 crore for implementation by the Central Ground Water Board during the XI Plan. The allocation for BE 2008-09 was Rs.95.00 crore and Rs.84.29 crore at RE stage and for 2009-10 it is Rs.70.00 crore. The demonstrative projects on Artificial Recharge to Ground Water and Rain Water Harvesting have been proposed to be taken up at a cost of Rs.100 crore with total funding by Central Government. The States of Kerala, West Bengal, Punjab, Arunachal Pradesh, Tamil Nadu, Orissa, Andhra Pradesh, Madhya Pradesh and Karnataka have taken interest in the Scheme and submitted proposal for setting up demonstrative projects. Some basic exercises for identification of project sites have been taken up so far and DPRs are being prepared where CGWB is helping the States. A total of 75 artificial recharge projects consisting of 1,300 structures are proposed for construction during XI Plan whereas 475 structures in 7 States have been approved by State level Committees. The proposals for construction of 317 structures at an estimated cost of Rs.1,070 lakh are being examined by CGWB. The Government has taken several steps to encourage recharge of Ground Water and Rain Water Harvesting. The Committee at this point of time expect the Ministry to implement these projects at the earliest so that the benefit in the form of increase in ground water level becomes visible so that other States are encouraged to adopt these measures which in turn would considerably ward off the threat of climate change. The Committee hope that the work of examination of the proposals for construction of 317 structures be completed expeditiously but within a definitive timeframe.
16.	5.13	The Committee note that under the 'Flood Control' Programme, various schemes are covered which include Flood Forecasting, River Management Activities and Water Works related to Border Areas. The allocation under Plan head was Rs. 211 crore in 2008-09 which was reduced to Rs. 197.84 crore due to delay in procurement of telemetry equipments required for modernization of flood forecasting system and also slow progress of investigation works of Sapta Kosi High Dam Project and anti-erosion works undertaken by Brahmaputra Board. The allocation was increased to Rs. 234.80 crore for 2009-10, i.e. an increase of Rs. 23.80 crore. Also under River Management activities Rs. 199.30 crore have been allocated. The increase, according to Ministry, is due to Grants-in-aid provided to Government of Bihar for closure of breach in Eastern Afflux Bund of Kosi Barrage in August 2008, and also to Government of West Bengal, Tripura and Jammu & Kashmir for river bank protection. The grant-in-aid to the J & K Government would be released shortly to undertake bank protection works in Jammu sector for protection of security check posts and other strategic installations. The Committee are dismayed that the allocation for 2008-09 was reduced for such an important programme for want of proper foresight, planning and administrative action. The Committee also desire that the grant-in-aid to J & K Government be released expeditiously so that vital works are undertaken and executed without further delay.
17.	5.14	The Committee note that Ganga Flood Control Commission and Brahmaputra Board prepare the master plans for management of flood in the respective river basins. Also flood management centre of NIH at Patna and Guwahati also undertake studies. Assistance is also provided to academic/research institutions in this regard to promote R & D activities in flood management. Under the Flood Forecasting Scheme, the

		Central Water Commission maintains a network of hydrological observation sites along the major river systems in the country and issue level forecast for 147 towns / cities and inflow forecast for 28 major reservoirs during flood seasons. The satellite based communication system has also been set-up in seven major river basins of the country. The Committee are happy to note that efforts are being made to modernize the flood forecasting activities particularly the communication systems during XI Plan. They expect the Ministry to make vigorous efforts to modernize the flood forecasting, instant information sharing with States concerned and also undertake R & D activities for flood management to minimize the devastation and the resultant human agonies.
18.	5.15	The Committee note that the problem of floods in the States of Uttar Pradesh and Bihar are recurring in nature and primarily due to the rivers flowing from Nepal. These floods can be managed only by constructing dams / reservoirs on the rivers inside Nepal and not in the Indian territory due to topographical reasons. The Committee, therefore, expect the Ministry of Water Resources to make all out and concerted efforts to pursue the Government of Nepal through diplomatic channels and also at the highest level in the Government so that the Government of Nepal in a spirit of mutual benefit and long term gain agree to the construction of dams. Needless to say such dams would be the monuments of our enduring relationship and give a new stimulus and fillip to the deep and long-abiding friendly relations between the peoples of India and Nepal.
19.	6.7	The Committee note that a pilot project for Repair, Renovation and Restoration of Water Bodies was launched in January 2005 in 26 districts of 15 States to augment and restore the capacity of water bodies and expand their irrigation potential. These projects cover 1,098 water bodies with total original culturable command area of 1.72 lakh ha. An additional irrigation potential of 0.78 lakh ha. was targeted under the Scheme. So far 966 water bodies have been restored in 15 States. The Committee regret to note that the pace of restoration of water bodies is rather slow as 966 Water Bodies have been restored so far against a small target of 1,098 water bodies. The Committee, therefore, recommend that the Ministry make concerted efforts to restore expeditiously the remaining 116 water bodies for which the work is in progress.
20.	6.8	The Committee note that the Government with a view to expand the project, approved two schemes one with external assistance, i.e. from World Bank and another with domestic support for implementation during XI Plan. The scheme envisages comprehensive improvement of selected tank systems, catchment area of tank commands, increase in storage capacity of water bodies, ground water recharge, increased agriculture and availability of drinking water. With external assistance, 23,000 water bodies have been targeted whereas agreements have been signed with the World Bank to cover 10,887 additional water bodies. The works have been completed in respect of 602 water bodies. Under the domestic support, one lakh water bodies are covered where 11 States have shown interest covering 8,908 water bodies. According to the Ministry, the State Governments have been requested to explore the possibility of submission of more projects for approval under World Bank Scheme. It is surprising to note that under the scheme with external assistance against a target of 23,000 Water Bodies, agreements have been signed with the World Bank to cover only 10,887 Water Bodies and the work has been completed in

		602 Water Bodies only. In the case of the scheme under domestic support against 1 lakh Water Bodies, 11 States have shown interest in 8,908 Water Bodies only. Considering the immense benefits that will accrue to the nation, the Committee desire the Ministry to take up the matter at the highest level with the remaining State Governments to come forward with their projects under the Scheme with World Bank assistance and also the scheme with domestic support. The Committee hope and expect that the project preparation work for the West Bengal project will be completed by the scheduled date, i.e. 30 June 2010.